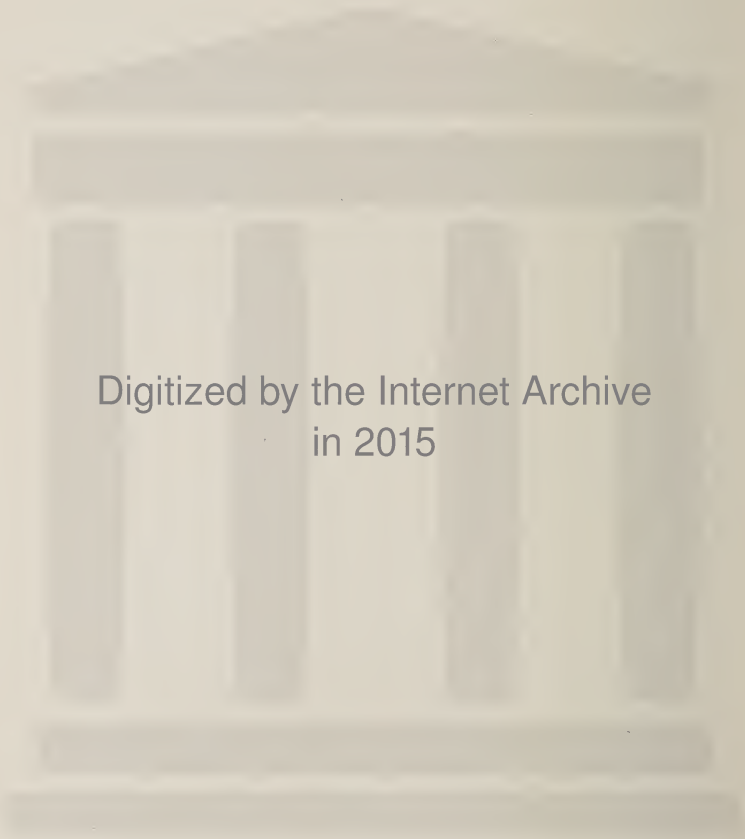


University of Toronto Degree Programmes in Extension
1972-73





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**UNIVERSITY OF TORONTO
PART-TIME DEGREE PROGRAMMES 1972-73**

St. George Campus and Erindale Campus

Faculty of Arts and Science

Faculty of Applied Science and Engineering

The College of Education

School of Nursing

School of Physical and Health Education

Faculty of Food Sciences

**University of Toronto
Division of University Extension
119 St. George Street
Toronto 181, Ontario**

FOR INFORMATION

Telephone 928-2405

9:00 A.M. - 9:00 P.M. Monday - Thursday

9:00 A.M. - 5:00 P.M. Friday

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UNIVERSITY AND FACULTY OFFICERS

PARTIAL LISTING 1971-1972

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Pauline Mills McGibbon, S M , B.A., LL.D.

Acting President

J.H. Sword, M.A , LL.D.

Acting Executive Vice-President (Academic) and Provost

D.F. Forster, B.A., A.M.

Vice-President and Registrar, and Secretary of the Senate

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Chief Librarian

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Assistant Registrar and Director of Admissions

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Secondary School Liaison Officer

W.A. Hill

Director of Statistics and Records

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Director of University Health Service

G.E. Wodehouse, M.C., M D., F.R.C.P.(C), M.R.C.P.

Assistant Director of University Health Service/ Women

Miss F.H. Stewart, B.A., M.D.

Director of Career Counselling and Placement Centre

D. Currey, B.A.Sc.

Acting Director of International Student Centre

E.A. McKee, M.A.

Director of Advisory Bureau

D.J. McCulloch, B.A., M.D., D.Psych., F.R.C.P.(C)

Director of Housing Service

Mrs. M.G. Jaffary, B.A.

Warden of Hart House

E.A. Wilkinson, B.A.

Director of Athletics and Recreation / Men

A.D. White, B.A., M.Ed.

Director of Physical and Health Education / Women

Miss A. Hewett, B Ed., P.E.

Comptroller

J.H. Lee, C.A.

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Associate Dean G.A.B. Watson, M.A., S.T.B.

Associate Dean W.T. Sharp, M.A., Ph.D.

Associate Dean Mrs. J.E. Foley, B.A., Ph.D.

Assistant Dean and Secretary W.D. Foulds, B.A.

Associate Secretary R.B. Oglesby, C.D., M.A.

Assistant Secretary C.R.C. Dobell, B.A.

FACULTY OF APPLIED SCIENCE AND ENGINEERING

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Associate Dean G.B. Craig, M.A.Sc., Ph.D.

Assistant Dean and Secretary J.A. Gow, B.A.Sc.

Counsellor W.G. MacElhinney, B.A.Sc., M.A.Sc.

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Assistant Dean H.O. Barrett, C.D., B.A., D.Paed., F.O.T.F.

Counsellor J.W. Greig, B.A., B.Ed., M.Ed., Ed.D.

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Associate Director Miss M.K. King, M.S.N.

Secretary Mrs. A. Field

Counsellor Mrs. J. Dalziel, B.A., M.A.

SCHOOL OF PHYSICAL AND HEALTH EDUCATION

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Secretary and Counsellor J. V. Daniel, B.P.H.E., B.A., M.S., Ph.D.

FACULTY OF FOOD SCIENCES

Acting Dean Mrs. I.L. Armstrong, M.A.

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Assistant Director A.R. Waugh, B.A.

Senior Counsellor W.H. Bateman, B.A.

Student Counsellors Mrs. G.K. Dixon, B.A.

Mrs. C.M. Kurtz, M.A.

J.A. MacMillan, B.Comm., B.Ed.

M.B. Ross, B.A.

Assistant G.B. Miller

Supervisor Registration Mrs. M.M. Pearson

Supervisor Information and Advertising Mrs. D.M. Deane, B.A.

SCHEDULE OF DATES

Summer Evening Session 1972

- April 1 Last day for new students, both regular and special, to apply for admission.
- April 15 Last day to submit registration forms and pay fees without late fee.
- April 25 Last day to submit registration forms and pay fees with \$10.00 late fee.
- May 1 Last day to submit registration forms and pay fees with \$20.00 late fee. After this date, registration for Summer Evening Session will not be permitted.
- May 15 Lectures and laboratory classes begin in full courses and 'F' and 'Y' half-courses.
- May 22 Victoria Day. (All classes cancelled.)
- May 24 Last day to change an 'F' half-course.
- May 29 Last day to change a full course and a 'Y' half-course.
- June 9 Last day to withdraw from an 'F' half-course without academic penalty.
- June 22 Last day of classes in 'F' half-courses.
- June 30 Last day to withdraw from a full course and a 'Y' half-course without academic penalty.
- June 30 Last day to withdraw from a full course and receive a refund of half the academic fee.
- July 3 University observance of Dominion Day. (All classes cancelled.)
- July 4 Lectures and laboratory classes begin in 'S' half-courses.
- July 12 Last day to change an 'S' half-course.
- July 28 Last day to withdraw from an 'S' half-course without academic penalty.
- August 7 Civic holiday. (All classes cancelled.)
- August 11 Last day of classes in full courses and 'S' and 'Y' half-courses.
- August 14-18 August examinations.
- June 1 Last day to submit requests to transfer to full time studies for 1972-1973 session.
- July 10 Last day for students with supplemental privileges to apply to write the August examinations.

Summer Day Session 1972

- May 15 Last day for new students, both regular and special, to apply for admission.
- June 1 Last day to submit registration forms and pay fees without late fee.
- June 10 Last day to submit registration forms and pay fees with \$10.00 late fee.
- June 15 Last day to submit registration forms and pay fees with \$20.00 late fee. After this date, registration for Summer Day Session will not be permitted.
- July 3 University closed to observe Dominion Day.
- July 4 Lectures and laboratory classes begin in full courses and 'F' and 'Y' half-courses.
- July 6 Last day to change an 'F' half-course.
- July 11 Last day to change a full course and a 'Y' half-course.
- July 14 Last day to withdraw from an 'F' half-course without academic penalty.
- July 21 Last day of classes in 'F' half-courses.
- July 21 Last day to withdraw from a full course and receive a refund of half the academic fee.
- July 24 Lectures and laboratory classes begin in 'S' half-courses.
- July 26 Last day to change an 'S' half-course.
- August 1 Last day to withdraw from a full course and a 'Y' half-course without academic penalty.
- August 4 Last day to withdraw from an 'S' half-course without academic penalty.
- August 7 Civic holiday. (All classes cancelled.)
- August 11 Last day of classes in full courses and 'S' and 'Y' half-courses.
- August 14–18 August examinations.
- June 1 Last day to submit requests to transfer to full time studies for 1972–1973 session.
- July 10 Last day for students with supplemental privileges to write the August examinations.

Winter Session 1972–1973

- July 1 Last day for new students, both regular and special, to apply for admission.
- August 1 Last day to submit registration forms and pay fees without late fee.
- August 10 Last day to submit registration forms and pay fees with \$10.00 late fee.
- August 30 Last day to submit registration forms and pay fees with \$20.00 late fee. After this date, registration for Winter Session will not be permitted.

FIRST TERM

- September 6 Lectures and laboratory classes begin in the Faculty of Applied Science and Engineering.
- September 11 Lectures and laboratory classes begin in the Faculty of Arts and Science, the School of Nursing, the School of Physical and Health Education, and the Faculty of Food Sciences.
- September 19 Lectures and laboratory classes begin in The College of Education.
- September 22 Last day to add or change a first-term course in the Faculty of Applied Science and Engineering.
- October 3 Last day to change a first-term course in The College of Education.
- October 6 Last day to change a course in the Faculty of Arts and Science, the School of Physical and Health Education, and the Faculty of Food Sciences.
- October 9 Thanksgiving Day. (All classes cancelled.)
- October 15 Last day to change a course in the School of Nursing.
- October 20 Last day to withdraw from a first-term half-course and receive a refund of half the academic fee.
- November 10 Last day to withdraw from a first-term course without academic penalty in the Faculty of Applied Science and Engineering.
- November 15 Last day to withdraw from a first-term course without academic penalty in the School of Nursing.
- November 15 Last day to withdraw from a first-term course without academic penalty in the Faculty of Arts and Science, The College of Education, the School of Physical and Health Education, and the Faculty of Food Sciences.
- November 30 Last day for students with supplemental privileges to apply to write the annual examinations.
- December 6 No lectures or laboratory classes after this date in the Faculty of Applied Science and Engineering.
- December 7–20 Study period and first-term examinations in the Faculty of Applied Science and Engineering.
- December 8 No lectures or laboratory classes after this date in the Faculty of Arts and Science, the School of Nursing, the School of Physical and Health Education, and the Faculty of Food Sciences.

- December 14–20 First-term examinations in the Faculty of Arts and Science, the School of Nursing, and the School of Physical and Health Education.
- December 20 No lectures or laboratory classes after this date in The College of Education.
- December 31 Last day to withdraw from a full course and receive a refund of half the academic fee.

SECOND TERM

- January 8 Lectures and laboratory classes begin in the Faculty of Arts and Science, the School of Nursing, the School of Physical and Health Education, and the Faculty of Food Sciences.
- January 9 Lectures and laboratory classes begin the Faculty of Applied Science and Engineering and The College of Education.
- January 19 Last day to add or change a second-term course in the Faculty of Applied Science and Engineering.
- January 23 Last day to change a second-term course in The College of Education.
- February 1 No second-term course may be begun after this date in the Faculty of Arts and Science.
- February 11–18 Reading week. (Lectures and laboratory classes will not be held in the Faculty of Arts and Science, the School of Nursing, the School of Physical and Health Education, and the Faculty of Food Sciences.)
- February 15 Last day to withdraw from a full course, a 'Y' half-course, and a second-term course without academic penalty in the Faculty of Arts and Science, the School of Nursing, the School of Physical and Health Education, and the Faculty of Food Sciences.
- February 16 Last day to withdraw from a second-term half-course and receive a refund of half the academic fee.
- March 9 Last day to withdraw from a second-term course without academic penalty in the Faculty of Applied Science and Engineering.
- April 13 No lectures or laboratory classes after this date in the Faculty of Arts and Science, the Faculty of Applied Science and Engineering, the School of Nursing, the School of Physical and Health Education, and the Faculty of Food Sciences.
- April 16–30 Study period and second-term examinations in the Faculty of Applied Science and Engineering.
- April 18 No lectures or laboratory classes after this date in The College of Education.
- April 19 Annual examinations begin in the Faculty of Arts and Science, the School of Nursing, the School of Physical and Health Education, and the Faculty of Food Sciences.
- May 25 Start of University Commencement.

CALENDAR

1972

January							February							March							April						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1			1	2	3	4	5				1	2	3	4							1
2	3	4	5	6	7	8	6	7	8	9	10	11	12	5	6	7	8	9	10	11	2	3	4	5	6	7	8
9	10	11	12	13	14	15	13	14	15	16	17	18	19	12	13	14	15	16	17	18	9	10	11	12	13	14	15
16	17	18	19	20	21	22	20	21	22	23	24	25	26	19	20	21	22	23	24	25	16	17	18	19	20	21	22
23	24	25	26	27	28	29	27	28	29					26	27	28	29	30	31		23	24	25	26	27	28	29
30	31																				30						

May							June							July							August						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1							1	2	3					1							1
7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12
14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19
21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26
28	29	30	31				25	26	27	28	29	30		23	24	25	26	27	28	29	27	28	29	30	31		
														30	31												

September							October							November							December						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1	1	2	3	4	5	6	7				1	2	3	4							1
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
24	25	26	27	28	29	30	29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
																					31						

CALENDAR

1973

January							February							March							April						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1							1	2	3					1	2	3	4	5	6	7	
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10	8	9	10	11	12	13	14
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17	15	16	17	18	19	20	21
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24	22	23	24	25	26	27	28
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31	29	30					

May							June							July							August						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1							1	2	1	2	3	4	5	6	7						1
6	7	8	9	10	11	12	3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11
13	14	15	16	17	18	19	10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18
20	21	22	23	24	25	26	17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25
27	28	29	30	31			24	25	26	27	28	29	30	29	30	31					26	27	28	29	30	31	

September							October							November							December						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1							1	2	3					1							1
2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8
9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15
16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22
23	24	25	26	27	28	29	28	29	30	31				25	26	27	28	29	30		23	24	25	26	27	28	29
30																					30	31					

Introduction

The purpose of the Division of University Extension is to make available the resources of the University of Toronto to adults who are prepared to engage in systematic study on a part-time basis. In a technological society in which rapid change is a constant influence, education is a continuing and life-long process. The effect of this change requires not only greater numbers of highly trained specialists, but also generalists equipped to understand and to integrate specialist functions.

The programme in the Faculty of Arts and Science allows the student to pursue his own intellectual interests and abilities through the individual structuring of his programme of study. The principle that all students should be allowed access equally to academic resources of the highest quality and the greatest range in order to fulfil their academic interests is the underlying basis of the programme.

There are approximately twenty thousand extension students engaged in part-time study at the University of Toronto. Many of these students are registered in programmes of study leading to a University of Toronto degree, diploma, or certificate. Others are registered in non-degree courses in the continuing education programme. A large number of students pursue courses by correspondence. This calendar provides information on degree programmes for men and women who may wish to continue their education and development through part-time study. For information on the other educational opportunities available to part-time students, contact the Division of University Extension, University of Toronto.

Important Notes

- 1 The Division of University Extension reserves the right to withdraw any course listed in this Calendar.
- 2 It should be noted that because of the large number of students and the wide freedom of choice, some courses in the more popular subjects are likely to attract more students than can be accommodated if a proper standard of instruction and learning is to be maintained. Restrictions on enrolment in such courses may be unavoidable; therefore students should register as early as possible.
- 3 Students should attempt to relate their academic programmes to their longer-range plans, and to this end should make themselves familiar with the requirements of such places as graduate schools, professional faculties, and Colleges of Education.
- 4 In view of increasing costs of supplies and labour, fees and other charges set forth in this Calendar are subject to change by the Governing Council.
- 5 For information on the part-time degree programme at Scarborough College, call 284-3127.

Application for Admission

Application for admission to the University and registration for courses are two separate procedures. New students may not register for specific courses until they have first applied for admission and been accepted.

The Undergraduate Admission Handbook 1973-1974 contains complete information on admission requirements and application procedures. Requests for the Handbook and inquiries regarding admission requirements should be directed to:

Office of Admissions
Simcoe Hall
University of Toronto
Toronto 181, Ontario

TYPES OF STUDENTS

There are two types of students registered in degree programmes in the Division of University Extension: Regular Students and Special Students.

REGULAR STUDENTS

Those part-time students who are proceeding to a degree of the University of Toronto in the Division of University Extension.

New Regular Students must first submit a regular student application for admission and provide evidence of meeting the admission requirements. Upon receiving a Letter of Admission from the Director of Admissions which indicates acceptance to the University, new students may register for specific courses. Instructions and forms for registration and the payment of fees will be mailed to successful applicants with the Letter of Admission. A ten dollar (\$10.00) non-refundable service fee is required of all applicants except those in full-time attendance in the final year of a Canadian Secondary School or those whose last academic work was done at the University of Toronto. This fee must be remitted by money order or certified cheque (payable to the University of Toronto) and must accompany the completed application.

The following documents must also accompany the completed application:

- 1 An Ontario Grade 13 Certificate or an equivalent certificate.
- 2 A birth certificate must be submitted by applicants seeking admission as mature students.
- 3 An official transcript of an approved university degree and a permanent basic Ontario teaching certificate must be submitted by applicants seeking admission to the Bachelor of Education programme of The College of Education.

- 4 In the Degree Course for Graduates of Diploma Schools of Nursing, candidates are required to present proof of current registration in a province of Canada, or an official transcript of their professional training. An official transcript of professional training is required by the School. If it is not available prior to admission, it must be submitted to the Admissions Officer, School of Nursing, no later than November 15 of that year.
- 5 An official transcript must be submitted by applicants who previously attended a university. Such applicants must arrange for an official transcript of their record to be sent to the Office of Admissions.

Candidates applying for admission who wish to proceed towards degrees as part-time students in programmes offered by the following divisions of the University are to submit a regular student application for admission:

Faculty of Arts and Science

Faculty of Applied Science and Engineering

The College of Education

School of Nursing

School of Physical and Health Education

The Bachelor of Arts, Bachelor of Science, and Bachelor of Education degrees may be obtained through part-time study.

The first year of the Engineering programme; the first year of the Physical and Health Education programme; the first and second years of the Nursing programme may be completed through part-time study.

The second, third and fourth years of the Engineering programme; the second, third and fourth years of the Physical and Health Education programme; the third year of the Nursing programme must be completed through full-time study.

Applications for admission to the Faculty of Applied Science and Engineering may be submitted for the Winter Evening Session and the Summer Evening Session; applications for admission to The College of Education may be submitted for the Winter Evening Session and the Summer Day Session; applications for admission to the School of Nursing may be submitted for the Winter Evening Session.

Newly admitted regular students who do not achieve standing in the session to which they have been accepted must re-apply for admission before registering for further courses.

Returning Regular Students who have achieved standing in one or more courses of the degree programme in the Division of University Extension need not re-apply for admission, but are required to register for courses in each session in which they wish to study.

SPECIAL STUDENTS

Those part-time students who are not proceeding to a degree of the University of Toronto offered in the Division of University Extension.

Such students may apply to register for individual courses for credit at other universities or other faculties within the University of Toronto.

A candidate clearing a condition may also be a special student.

A candidate holding a degree who wishes to strengthen his transcript may apply for admission as a special student.

Applicants for admission as special students who have not previously been admitted to the Faculty of Arts and Science and those who have not obtained standing in at least one course offered by that Faculty must submit an application for admission to the Office of Admissions. Applicants for admission as special students who wish to take courses offered through the Division of University Extension by other faculties must submit an application for admission to each session in which they wish to register. Instructions and forms for the payment of fees and for registration will be mailed by the Office of Admissions on acceptance of a special student's application. A ten dollar (\$10.00) non-refundable service fee is required of all applicants except those whose last academic work was done at the University of Toronto. This fee must be remitted by money order or certified cheque (payable to the University of Toronto) and must accompany the completed application.

The following must also accompany the completed application:

- 1 The latest statement of marks must be submitted by University of Toronto students (including returning special students).
- 2 An official transcript must be submitted by all other applicants. Such applicants must arrange for an official transcript of their record to be sent to the attention of the Special Student Section of the Office of Admissions. Students who have graduated or who are currently registered or who have obtained standing in at least one course in the Faculty of Arts and Science as regular or special students and who wish to take additional courses not for credit towards a degree in that Faculty must submit a request for registration as a special student for each session they wish to attend. Such requests must be submitted on the appropriate form to the Faculty Office, Sidney Smith Hall, 100 St. George Street, Toronto 181, at least three weeks prior to the beginning of the session in which they wish to register. Request forms are available at the offices of College Registrars, the Division of University Extension, and the Faculty Office. Instructions and forms for the payment of fees and for registration will be given to the student or mailed to him by the Faculty Office on acceptance of a request.

ADMISSION REQUIREMENTS 1972-1973

Admission to the first year of an undergraduate programme will be offered to candidates from Ontario secondary schools who demonstrate good standing, based upon the following evidence:

- 1 Completion of secondary school studies, including a full programme of academic work at the Grade 13 level.
- 2 A recommendation by the secondary school last attended regarding fitness for university studies.
- 3 A complete academic report for the three final years of secondary school.
- 4 Results of standardized tests offered by the Service for Admission to College and University.

Throughout the secondary school years students should study in as many of the following areas as possible: English; French and other languages;

Mathematics; Sciences; Social Studies. Students should also consider carefully what aspects of their projected university work will entail prerequisite study.

Candidates are advised to include in their Grade 13 programme at least two of: English; French or another language; Mathematics; Science. Certain university courses in Mathematics, Science and Languages have Grade 13 prerequisites listed in the calendar.

No minimum mark or percentage is prescribed for admission to the University, but because of the pressure of applications and the nature of the university courses it is likely that an applicant will require a school average above 60% in order to be considered for selection.

Candidates who completed Grade 13 in 1971 or previously should present a complete programme consisting of seven credits and including subjects as recommended above.

Mature Students A candidate of mature age (twenty-three years of age or older on October 1 of the Winter Session or July 15 of the Summer Session) who has lived in Ontario for a minimum period of one year may request special consideration for admission if he has obtained high standing in at least one Pre-University Course offered through the Division of University Extension (or an equivalent course) and obtains standing in such other tests as may be required. His previous secondary school record will also be taken into account. A birth certificate must be submitted by a candidate seeking admission as a mature student.

A candidate wishing to apply for admission as a mature student should consult the Office of Admissions about his eligibility before undertaking one of the Pre-University Courses, since successful completion of a Pre-University Course does not in itself ensure admission. Courses with scientific content such as those offered by the professional faculties often have additional entrance requirements. This information may also be obtained from the Office of Admissions.

ADMISSION REQUIREMENTS TO DIVISIONS OF THE UNIVERSITY

FACULTY OF ARTS AND SCIENCE

Candidates are advised to include in their Grade 13 programme at least two of: English; French or another language; Mathematics; Science. Certain university courses in Mathematics; Science; and Languages have Grade 13 prerequisites listed in the calendar.

Mature students must offer high standing in at least one Pre-University Course (or an equivalent course).

FACULTY OF APPLIED SCIENCE AND ENGINEERING

Candidates should have completed a full programme of study at the Grade 13 level including the following subjects: Mathematics A and B; Physics and Chemistry. Superior students lacking one of Mathematics B; Physics; or Chemistry will also be eligible. Candidates for the programme in Engineering Science should have excellent standing.

Mature students must offer high standing in three Pre-University Courses (or their equivalent), to include Chemistry; Mathematics; Physics.

THE COLLEGE OF EDUCATION

Candidates must present an approved university degree and a permanent basic Ontario teaching certificate.

SCHOOL OF NURSING

Candidates must offer standing in Chemistry.

Mature students must offer high standing in two Pre-University Courses (or their equivalent), one of which must be Chemistry.

SCHOOL OF PHYSICAL AND HEALTH EDUCATION

Candidates are advised to include in their Grade 13 programme two of: Biology; Chemistry; Mathematics and Physics. By means of a personal interview, a candidate will be evaluated with regard to his general health, activity background, leadership experience and apparent ability to participate in the activities of the School.

Mature students must offer high standing in at least one Pre-University Science Course (or an equivalent course), and will also be considered on an individual basis after a personal interview to determine suitability for admission.

ADMISSION REQUIREMENTS 1973-1974

Admission to the first year of an undergraduate programme will be offered to candidates from Ontario secondary schools who demonstrate good standing, based upon the following evidence:

- 1 Completion of secondary school studies, including a full programme of academic work at the Grade 13 level.
- 2 A recommendation by the secondary school last attended regarding fitness for university studies.
- 3 A complete academic report for the three final years of secondary school.
- 4 Results of standardized tests offered by the Service for Admission to College and University.

Throughout the secondary school years students should study in as many of the following areas as possible: English; French and other languages; Mathematics; Sciences; Social Studies. Students should also consider carefully what aspects of their projected university work will entail prerequisite study.

Candidates are advised to include in their Grade 13 programme at least two of: English; French or another language; Mathematics; Science. Certain university courses in Mathematics, Science and Languages have Grade 13 prerequisites listed in the calendar.

No minimum mark or percentage is prescribed for admission to the University, but because of the pressure of applications and the nature of the university courses it is likely that an applicant will require a school average above 60% in order to be considered for selection.

Candidates who completed Grade 13 in 1971 or previously should present a complete programme consisting of seven credits and including subjects as recommended above.

Mature Students A candidate of mature age (twenty-three years of age or older on October 1 of the Winter Session or July 15 of the Summer Session) who has lived in Ontario for a minimum period of one year may request special consideration for admission if he has obtained high standing in at least one Pre-University Course offered through the Division of University Extension (or an equivalent course) and obtains standing in such other tests as may be required. His previous secondary school record will also be taken into account. A birth certificate must be submitted by a candidate seeking admission as a mature student.

A candidate wishing to apply for admission as a mature student should consult the Office of Admissions about his eligibility before undertaking one of the Pre-University Courses, since successful completion of a Pre-University Course does not in itself ensure admission. Courses with scientific content such as those offered by the professional faculties often have additional entrance requirements. This information may also be obtained from the Office of Admissions.

ADMISSION REQUIREMENTS TO DIVISIONS OF THE UNIVERSITY

FACULTY OF ARTS AND SCIENCE

Candidates are advised to include in their Grade 13 programme at least two of: English; French or another language; Mathematics; Science. Certain university courses in Mathematics; Science; and Languages have Grade 13 prerequisites listed in the calendar.

Mature students must offer high standing in at least one Pre-University Course (or an equivalent course).

FACULTY OF APPLIED SCIENCE AND ENGINEERING

Candidates should have completed a full programme study at the Grade 13 level including the following subjects: Relations and Functions, Calculus, and Algebra; Physics and Chemistry. Superior students whose programmes do not include all of these subjects will also be considered. In addition to the above requirements, candidates for the programme in Engineering Science should have excellent standing.

Mature students must offer high standing in three Pre-University Courses (or their equivalent), to include Chemistry; Mathematics; Physics.

THE COLLEGE OF EDUCATION

Candidates must present an approved university degree and a permanent basic Ontario teaching certificate.

SCHOOL OF NURSING

Chemistry is required. Consideration will be given to superior students who lack Grade 13 Chemistry.

Mature students must offer high standing in two Pre-University Courses (or their equivalent), one of which must be Chemistry.

SCHOOL OF PHYSICAL AND HEALTH EDUCATION

Candidates are advised to include in their Grade 13 programme two of: Biology; Chemistry; Mathematics and Physics. By means of a personal interview, a candidate will be evaluated with regard to his general health, activity background, leadership experience, and apparent ability to participate in the activities of the School.

Mature students must offer high standing in at least one Pre-University Science Course (or an equivalent course), and will also be considered on an individual basis after a personal interview to determine suitability for admission.

RELATED INFORMATION

Equivalent Certificates

Applicants offering certificates other than Ontario Grade 13 are advised to consult the Office of Admissions for specific details on admission requirements.

Advanced Standing Credit

An undergraduate of another university or of another faculty in this University may be admitted with advanced standing credit on such conditions as may be prescribed. Advanced standing credit is awarded to students who at another university or faculty have taken work which is equivalent in content to work which would have been taken had they been students in the Division of University Extension. Each application is considered individually in terms of the student's previous record and the courses offered by the Division of University Extension.

English Facility Requirements

Applicants for the University of Toronto whose mother tongue is not English may be required to meet an appropriate standard in a recognized test of English facility such as the University of Michigan English Language Test, the Certificate of Proficiency in English issued by the Universities of Cambridge or Michigan, or the Test of English as a Foreign Language (T.O.E.F.L.). The University of Toronto is a sponsoring agency for the University of Michigan English Language Test and information about the test is sent to any applicant of whom it will be required.

Transfers

Part-time students who wish to transfer to full time studies for the Winter Session must consult the Division of University Extension and must submit requests to transfer before June 1. Part-time students are normally required to complete one academic year before transferring to the next year of full time studies.

Full time students who wish to transfer to part-time studies are advised to consult the Registrar of their College or the Secretary of their Faculty.

Final Dates of Application

Summer Evening Session / April 1

Summer Day Session / May 15

Winter Session / July 1

Since facilities are limited the University cannot guarantee the acceptance of all qualified applicants. Applicants for admission should therefore regard the holding of the published admission requirements as meaning only that they are eligible for consideration for admission to the University.

All applications for admission are to be sent directly to:

Office of Admissions

Simcoe Hall

University of Toronto

Toronto 181, Ontario

General Regulations

The following regulations apply to all students in degree programmes in the Division of University Extension.

REGISTRATION

All students must register for courses in each session in which they wish to study.

New Regular Students must first submit a regular student application for admission and provide evidence of meeting the admission requirements. Upon receiving a Letter of Admission from the Director of Admissions which indicates acceptance to the University, new students may register for specific courses. Instructions and forms for registration and the payment of fees will be mailed to successful applicants with the Letter of Admission.

Returning Regular Students will receive by mail the necessary registration material for each session.

Special Students must submit an application for admission or a request for registration for the session in which they wish to study. Instructions and forms for registration and the payment of fees will be mailed upon acceptance of these forms.

All Students must complete the registration form as instructed, and send it together with a cheque for the fees in full, made payable to the University of Toronto in Canadian funds. The registration form and fees must be sent to:

Fees Department
Office of the Comptroller
University of Toronto
215 Huron Street
Toronto 181, Ontario

DATES

The registration form and the fees in full must be submitted by the following dates:

Summer Evening Session / April 15

Summer Day Session / June 1

Winter Session / August 1

Students who register after these dates are subject to a late registration fee (see Fees Section).

Registration will not be permitted after the following dates:

Summer Evening Session / May 1

Summer Day Session / June 15

Winter Session / August 30

NOTES

- 1 Please indicate clearly the course number and the campus on which you intend to take the course.

- 2 It is the responsibility of each student to ensure that the courses he chooses meet the published requirements for the degree.
- 3 Registration cards will be issued for the courses selected. Students should be prepared to present registration cards when borrowing books from the Library and when writing examinations.
- 4 It is of the utmost importance that every detail of the registration card be correct. Discrepancies, if any, should be reported promptly and the card returned for correction.
- 5 Changes of address are to be reported immediately, in writing.
- 6 Students are held financially responsible for the full fees of all courses in which they register unless they notify the Assistant Director, Division of University Extension, in writing, within four weeks of the date of registration.
- 7 Post-dated or changed cheques are not acceptable. Returned cheques are subject to a \$10.00 penalty.
- 8 Payment of fees does not constitute registration.

FEES

FACULTY OF ARTS AND SCIENCE

Academic fee for each full course/\$95.00

Academic fee for each half-course/\$47.50

FACULTY OF APPLIED SCIENCE AND ENGINEERING

Academic fee for each course in Engineering/\$70.00

Academic fee for each full course in Arts and Science/\$95.00

Academic fee for each half-course in Arts and Science/\$47.50

THE COLLEGE OF EDUCATION

Academic fee for each course/\$47.50

SCHOOL OF NURSING

Academic fee for each full course/\$95.00

Academic fee for each half-course/\$47.50

SCHOOL OF PHYSICAL AND HEALTH EDUCATION

Academic fee for Physical Education 100-101/\$75.00

Academic fee for Physical Education 103/\$75.00

Academic fee for Physical Education 203/\$95.00

Academic fee for Physical Education 308/\$95.00

Academic fee for each course in Physical Activities/\$25.00

Academic fee for each full course in Arts and Science/\$95.00

Academic fee for each half-course in Arts and Science/\$47.50

FACULTY OF FOOD SCIENCES

Academic fee for each course/\$95.00

ADDITIONAL FEES

- 1 In addition to the academic fees listed above, all students must pay the \$3.00 fee of the Association of Part-time Undergraduate Students for each session in which they register, to a maximum of \$6.00 each year.
- 2 All students who register in the Summer Evening Session must pay the activity fee of \$2.00.
- 3 All students who register in the Summer Day Session must pay the activity fee of \$5.00, with the exception of those registered in the Summer Evening Session. Students registered in the Summer Evening Session who also register in the Summer Day Session of the same year need pay an additional activity fee of \$3.00.

LATE FEES

- 1 For registration from April 15 to April 25 inclusive for the Summer Evening Session, June 1 to June 10 inclusive for the Summer Day Session, and August 1 to August 10 inclusive for the Winter Session/\$10.00.
- 2 For registration from April 25 to May 1 inclusive for the Summer Evening Session, June 10 to June 15 inclusive for the Summer Day Session, and August 10 to August 30 inclusive for the Winter Session / \$20.00.

SUPPLEMENTAL EXAMINATION FEE

One course/\$10.00

Each additional course/\$5.00

Each student who applies to write a supplemental examination either at the annual examination in May or the supplemental examination in August must pay this fee on or before December 1 if writing at the annual examination, or July 10 if writing at the August examination.

Late application for supplemental examination/ (per day) \$1;
(maximum) \$20

Each student who fails to file his application for a supplemental examination by the date appointed for the receipt of such must pay \$1 for each day's delay, to a maximum of \$20.

Outside Centre fee/ (minimum) \$10; (each additional paper) \$5

Each student who applies to write an examination outside Toronto must pay this fee on or before December 1 if writing at the time of the annual examinations; or July 10, if writing at the August examinations.

Re-checking marks/ (per paper) \$5; (refund to be made if error is found)

TRANSCRIPT OF RECORD

A student who requires proof that he has obtained standing in one or more courses in a degree programme in Extension should apply for an official transcript of his record. Standard request forms may be obtained from the Division of University Extension.

Transcript of record/ \$1; for each additional copy ordered at the same time/25¢

The above fees are subject to change.

WITHDRAWAL

A student who wishes to withdraw from a course must write to the Division of University Extension immediately. He must state specifically the date upon which he last attended lectures in the course, and must return his registration card with his letter of withdrawal. *Merely ceasing to attend lectures, or informing the instructor, although it is courteous to do so, does not constitute official withdrawal.*

A student who does not write the examinations, or who ceases to attend lectures after the last day to withdraw from a course without academic penalty as listed in the Schedule of Dates of this calendar, will be considered to have failed to obtain standing in the course. Petitions for exceptions based on medical or compassionate grounds, together with supporting documents, must be submitted to the Assistant Director before the end of the examination period.

Credit will be retained for any course successfully completed and discredit noted for any course failed.

Fees will be refunded according to the schedule that appears below. If a student neglects to state the date upon which he last attended lectures in the course, the postmark of his letter will be used as the effective date of withdrawal, and requests for increasing the amount of the refund will not be considered.

SCHEDULE OF REFUNDS

WINTER SESSION

Full Courses:

For students withdrawing between the first day of classes and December 31st/Half of the academic fee

For student withdrawing on or after January 1st/No refund

Half Courses:

For students withdrawing in the first six weeks of classes/Half of the academic fee

For students withdrawing after the first six weeks of classes/No refund

SUMMER EVENING SESSION

Full Courses:

For students withdrawing between the first day of classes and June 30th/
Half of the academic fee

For students withdrawing on or after July 1st/No refund

Half Courses:

For half courses/No refund

SUMMER DAY SESSION

Full Courses:

For students withdrawing within the first three weeks of classes/Half of the academic fee

For students withdrawing after the first three weeks of classes/No refund

Half Courses:

For half courses/No refund

Precise dates are not stated for all sessions as these will vary from year to year. In cases of withdrawal for health or compassionate reasons the refund will be computed on an individual basis.

CHANGE OF COURSE

A student who wishes to request a change of course must notify the Division of University Extension in writing before the deadlines that are listed in the Schedule of Dates of this calendar.

PROCEDURE FOR EXAMINATIONS

- 1 The Annual (Spring) examinations in the Faculty of Arts and Science, the Faculty of Applied Science and Engineering, The College of Education, the School of Nursing, the School of Physical and Health Education are held in late April and early May. Final examinations in First-term courses are held at the end of that term. The August examinations are held during the week following completion of Summer Session lectures.

- 2 Students in the Division of University Extension are no longer required to submit applications for examinations for the subjects in which they are registered during either a Winter or Summer Session.

Only those listed below need apply:

- a Students who have been granted supplemental examination privileges.
- b Students who were unable to write at the usual examination period, but who have been granted exemption from the academic penalty and are permitted to write at a subsequent examination period.
- c Students who wish to write at Outside Centres.
- d Students who wish to rewrite a subject in which they have previously obtained standing for the purpose of upgrading their final mark.

NOTE: Engineering students are not normally granted permission to write supplementals. An Engineering student, may petition, however, if he is unable to write an examination at the specified time in order to write the examination at the next examination period.

- 3 Where applications for examinations are required they must be submitted by:
 - a November 30 for the following Annual (Spring) examinations.
 - b July 10 for the following August examinations.
 - c A penalty fee of \$1 per day to a maximum of \$20 will be charged on all applications for examinations received after November 30, for the following Annual (Spring) examinations and July 10, for the following August examinations. Applications for examinations submitted more than 20 days past the due date will be accepted only in exceptional circumstances. Students to whom above sections a) and b) apply will normally receive Application Forms from the Secretary, Faculty of Arts and Science or the School of Nursing when granted the privilege to write. Students in category c) and d) must request that an Application Form be sent to them.

Failure to receive the Application Form in the mail does not absolve a student from the responsibility for submitting an Examination Application by the due date. Additional Application Forms may be obtained from the Division of University Extension.

- 4 Examinations for students registered in Extension are conducted by the Faculty of Arts and Science, the Faculty of Applied Science and Engineering, The College of Education, the School of Nursing, the School of Physical and Health Education. *Examination numbers, under which candidates write, will be mailed to students prior to the final examination.* It is, therefore, extremely important that students notify the Division of University Extension of any change of address during the year. *Students are required to show their registration cards when writing examinations.*
- 5 The Annual examinations are held at the University and at the following centres: Banff, Calgary, Charlottetown, Edmonton, Fredericton, Halifax, Kapuskasing, Kenora, Kingston, Kirkland Lake, London (Ont.), London (Eng.), Montreal, North Bay, Ottawa, Quebec, Regina, St. John's (Nfld.), Saskatoon, Sault Ste. Marie, Sudbury, Thunder Bay, Vancouver, Whitehorse (Yukon), Windsor, Winnipeg. Normally, only students who have supplemental privileges and who are not in attendance in the session for which examinations are written, will be permitted to write at an Outside Centre. Application to write at an Outside Centre must be made not later than the preceding November 20 for the Annual (Spring) examinations and not later than the preceding July 10 for the August examinations. Candidates for the Annual examinations at Outside Centres must notify the Secretary of the Faculty before April 1st if they do *not* wish to write one or more of the examinations for which they applied; otherwise the fee will be forfeited. Candidates for the August examinations at Outside Centres must notify the Secretary of the Faculty before August 1 if they do *not* wish to write one or more of the subjects for which they applied; otherwise the fee will be forfeited.
- 6 A provisional time-table will be posted in buildings on the campus approximately two weeks prior to the period of examinations to permit students to report clashes. The final time-table will be posted in buildings on the campus about a week later. *Every student is responsible for acquiring time-table information for himself. Information regarding dates of specific examinations cannot be given by telephone.*
- 7 Results of examinations will be mailed to each candidate.

STANDING IN A COURSE (OR HALF-COURSE)

- 1 The following scale of marks is recommended for use in all courses and half-courses in all years:

Arts and Science	
The College of Education	
Nursing	
Physical and Health Education	
Mark	Grade
80–100%	A
70– 79%	B
60– 69%	C
50– 59%	D
Below 50%	Fail

Applied Science and Engineering

Mark	Grade
80-100%	1
70- 79%	2
60- 69%	3
50- 59%	4
Below 50%	5

- 2 In the case of half-courses, standing must normally be obtained in each half-course attempted. Marks in two half-courses may not be averaged to produce standing in a whole course equivalent, except where the Department(s) concerned specify beforehand that this will be permitted for particular and stated combinations of two half-courses.

TERM MARKS AND EXAMINATIONS

The method of arriving at a final mark for each 200- or higher-series course (or half-course) will be decided by the Department offering the course. The final mark in the 100-series courses will normally be made up of a term mark and an examination mark with the restriction that not less than one-third nor more than two-thirds of the final mark will be based on term work. Final examinations will normally be held in 100-series courses and requests for exemption of courses from this regulation shall be brought before the Council. Students in a First Year programme may write a supplemental examination in one failed 100-series course if they have a term mark in that course of at least 60%. Failure in a supplemental examination will not count as a second failure, but will necessitate re-enrolment in the failed course or a substitute.

Students in Second, Third and Fourth Years and Special Students will not be permitted to write supplemental examinations in 100-series courses and none will be offered in 200-, 300- and 400-series courses.

A student whose attendance at lectures or laboratories, or whose work is deemed by the Council of the Faculty to be unsatisfactory, may have his registration cancelled at any time by the Council.

- 1 A candidate will not be allowed to present himself for examination in any subject until he has paid fees in full, attended lectures in the subject during one academic session and obtained a term mark.
- 2 All term assignments must be submitted before the beginning of the relevant examination period.
- 3 The marks for term work in each subject will be determined in the manner considered to be most suitable by the department concerned.
- 4 The ratio of term marks to examination marks in each subject will be determined by the Department.
- 5 A student who does not write the final examination, or who ceases to attend lectures after the last day to withdraw from a course without academic penalty as listed in the Schedule of Dates of this calendar, except for medical or similar reasons for which proof must be submitted, will be considered to have failed to obtain standing in the course.
- 6 Petitions for consideration with regard to the Annual (Spring) or August examination on account of sickness, domestic affliction, or other causes,

must be filed with the Assistant Director, Division of University Extension, together with a doctor's certificate which states the nature and seriousness of the illness, and that the candidate was examined at the time of the illness, or other evidence. These must be submitted before the end of the examination period in question. A student who satisfies this requirement will normally be permitted to write the examination(s) at the next available examination period without academic penalty or payment of the supplemental examination fee. If the student does not write at that time or if he fails to achieve standing he shall forfeit his term mark(s) and be required to re-enrol. Aegrotat standing, i.e. standing in a subject or subjects without being required to write the final examination(s), is granted only once to any student and is seldom granted unless such standing is required to complete the degree programme.

- 7 A student is required to clear a condition by writing a supplemental examination during the next examination period. If standing in the subject has still not been obtained, the candidate must re-enrol in it, secure a new term mark, and write the examination under the same conditions. Should he not succeed in obtaining standing in these further attempts, he will not be allowed to take the subject again.
- 8 A student who fails a subject should consult the Department concerned with respect to the content of that subject before rewriting the examination.
- 9 No special examination will be set in any subject because of change in its content.
- 10 It is a policy of the Faculty that no examination papers or essays will be re-read or re-evaluated after results have been issued. Examination papers are re-read in each examination in which a mark of less than 50 per cent has been assigned, and no appeal will be considered for further re-reading of such papers. Papers in which at least 50 per cent has been obtained will not be re-read. All results are carefully reviewed before being released. However, the clerical work involved in the department and in the Faculty Office will be checked if a petition is submitted through the Division of University Extension with a fee of \$5.00 per course. This fee will be refunded if an error is found.
- 11 Students may not rewrite an examination in a course in which they have standing.
- 12 An Engineering student may not rewrite any examinations. He may, however, repeat a total of two courses in order to raise his overall average. A course may be repeated only once.

Failed supplemental examinations do not count as second failures.

APPEALS

A student wishing to appeal to the Senate against a decision of a Faculty Council should consult the Assistant Director, Division of University Extension, about the preparation and submission of his petition to the Secretary of the Senate.

General Information

FINANCIAL ASSISTANCE

Applications are to be sent to the Secretary, Division of University Extension, prior to October 15 for the Winter Session and to June 15 for the Summer Session. Further information and application forms for the following Bursaries are available from the Assistant Director, Division of University Extension, 119 St. George St., Toronto 181.

Note: Bursary applicants are normally expected to pay fees on time, i.e. before decisions on bursaries are reached.

THE DIVISION OF UNIVERSITY EXTENSION ALUMNI AWARD

The Division of University Extension Degree Section Alumni will make an annual contribution to assist degree students of the Division.

Each award to the value of \$40.00 will be granted to students in the Faculty of Arts and Science who have completed at least four first year courses in the Division of University Extension, who obtained a minimum overall average of 66% and who have demonstrated the need for financial assistance. The award is available only to students who have not received other financial assistance in the session in which the award is made. Normally one award will be made in the Winter Session and one award in the Summer Session.

THE WILLIAM JAMES DUNLOP BURSARY

As a tribute to the long services of the late Dr. W.J. Dunlop, who for thirty years was Director of the Division of University Extension, and in appreciation of his leadership in education in Ontario, colleagues and associates, on his retirement in June 1951, established a fund in the Faculty of Arts and Science to be known as the William James Dunlop Bursary.

The Bursary, of the value of \$100.00, is available to elementary school teachers who have credit for at least two courses in the Pass Course for Teachers or the General Arts Course as students of this Division. Preference will be given to students from Northern and Northwestern Ontario. To be eligible, a student must enrol for two or more courses in the Summer Session immediately following the award. This Bursary may be held only once by any student.

IFAC/IFIP AWARDS

The International Federation on Automatic Control and the International Federation on Information Processing in conjunction with the Division of University Extension have offered these awards to students who have completed the First Year Programme in Engineering through the Division of University Extension, and who enter second year in full-time study as candidates for the degree of Bachelor of Applied Science. The awards will be given on the basis of academic standing (a minimum overall 66% average) and financial need. The award is of the approximate value of \$500.00.

INCO BURSARIES

The International Nickel Company of Canada is offering a number of bursaries to secondary school teachers who have degrees, but require further work in Science. The bursaries are usually offered for the Summer Session only; however, there may be Inco Bursaries available for the Winter Session. The amount of each bursary is \$250.00.

In April, applications and details are mailed to all high schools in Ontario. Applications for the additional bursaries that are available for the Winter Session 1972-73 must be received by the Secretary, Division of University Extension, before October 15.

THE HARRIET M. LATTER BURSARY

The Harriet M. Latter Bursary, in memory of the first Secretary of the Division of University Extension, of the value of approximately \$250.00, is available annually to a student enrolled in the Faculty of Arts and Science who has completed, with a minimum overall B standing, at least four courses in that Faculty as a student of this Division, on the recommendation of the Acting Director, Division of University Extension. This Bursary will be awarded to a student wishing to enrol in full time studies or in the School of Graduate Studies.

UNIVERSITY WOMEN'S CLUB OF ETOBICOKE BURSARIES

Through the generosity of the University Women's Club of Etobicoke, six or more bursaries valued at \$50.00 each will be awarded in the 1972-1973 Winter Session and the 1972 Summer Session. The bursaries will be awarded on the recommendation of the Acting Director, Division of University Extension, to women students who have completed at least two courses in a degree programme in the Division of University Extension with a satisfactory average and who show evidence of financial need.

THE VARSITY FUND

Through the generosity of the Varsity Fund, six bursaries of the value of \$200.00 each will be available to students who have successfully completed at least two courses in the Division of University Extension and who are proceeding towards a degree at the University of Toronto. The awards will be given on the basis of academic standing (a minimum overall 66% average) and financial need. Awards will be made in each of the Winter, Summer Evening and Summer Day Sessions. This award may not be offered annually.

THE JAMES A. PRIESTLY BURSARIES

As a memorial to James A. Priestly, ten bursaries worth \$200.00 each will be awarded to students of the Division of University Extension on the basis of academic standing and financial need. These awards will be distributed during the Winter, Summer Evening and Summer Day Sessions.

AWARDS

SISTER ST. JOHN AWARD

As a tribute to Sister St. John for over twenty years of continuous and outstanding achievement as a lecturer to students of this Division, this award was established in her name for the graduating student of this Division who has the highest average in the last five courses.

DONALD PUTNAM AWARD

In recognition of Dr. Putnam's thirty-five years of outstanding achievement as a lecturer to students of this Division, this award was established in his name for the graduating student of this Division who has shown outstanding ability in Geography.

STUDENT SERVICES

St. George Campus

ACADEMIC COUNSELLING

Students entering the University for the first time should meet with an academic counsellor in the Division of University Extension to discuss their academic programme. Counselling hours are arranged to meet the requirements of each student and are held at 119 St. George Street. For counselling appointments, telephone 928-2405.

WRITING LABORATORY

The Writing Laboratory is a service designed to help students write more effectively. The staff of the Writing Laboratory will work with individual students as editorial consultants, analyzing their written work to help them overcome problems in the organization of ideas, sentence structure, word choice and the documentation of research sources. With the exception of an introductory lecture, the work of the Writing Laboratory is conducted in individual interviews on the basis of work in progress. Appointments for interviews should be arranged by telephoning 928-8600.

BOOKSTORE FACILITIES

Books may be purchased at the Textbook Store (corner of Willcocks and Huron) and the Bookroom (21 King's College Circle).

Hours of Service

Textbook Store:	Monday–Thursday	8:45 A.M.–7.00 P.M.
	Friday	8:45 A.M.–5:00 P.M.
Bookroom:	Monday–Friday	8:45 A.M.–5:00 P.M.
	Saturday	11:00 A.M.–5:00 P.M.

LIBRARY FACILITIES

For complete details on Library services, please consult *A Student's Guide to the University Library* which is available on request from the Central Library.

Access to a substantial collection of books is essential to students enrolled in a degree programme.

- 1 The University Library provides a special collection of books for Extension students, registered in Degree Courses and some Certificate Courses. These books have been selected from recommended reading lists for undergraduates and are housed at 47 Queen's Park Crescent for the exclusive use of Extension students who may borrow them for a period of one week.
- 2 Books from the general reserve collection in the Wallace Room (Humanities and Social Sciences) and in the Science and Medicine Department may be borrowed for overnight, three days or one week, unless otherwise restricted.
- 3 Books from the Central Library stacks may also be borrowed by Extension students for a period of one week, unless otherwise restricted.
- 4 The Engineering Library will be available to Extension students enrolled in the First Year Programme in Engineering.
- 5 The College of Education Library will be available to Extension students in the Bachelor of Education Programme.

Hours of Service (subject to change)

SUMMER SESSION 1972

Main Library

Monday–Thursday	8.30 A.M.– 9.00 P.M.
Friday	8.30 A.M.– 6.00 P.M.
Saturday	9.00 A.M.– 5.00 P.M.

Wallace Room and Laidlaw Library

Monday–Thursday	8.30 A.M.–10.30 P.M.
Friday	8.30 A.M.– 6.00 P.M.
Saturday	9.00 A.M.– 5.00 P.M.

New College Library (Summer Day Session only)

Monday–Friday	9.00 A.M.– 5.00 P.M.
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Extension Collection, 47 Queen's Park Crescent

Closed May 6–September 11

WINTER SESSION 1972–73

Main Library

Monday–Friday	8.30 A.M.–midnight
Saturday	9.00 A.M.– 5.00 P.M.
Sunday	1.00 P.M.–10.00 P.M.

Extension Collection, 47 Queen's Park Crescent

Monday–Thursday	12.30 P.M.–11.00 P.M.
Saturday	9.00 A.M.– 5.00 P.M.
Sunday	1.00 P.M.–10.00 P.M.

RECREATION AND ATHLETICS

Women students proceeding to the degree may take out membership in the activities of the Benson Building (Women's Athletic Building). Apply at the office of the Benson Building. The fee from September 7 to April 30 is \$20.00, from January 1 to April 30 is \$10.00, and from May 1 to August 6 is \$10.00. Locker and towel service is available at a small fee. For monthly rates and additional information contact the office of the Benson Building (928-3441 or 928-3437). Men students may join Hart House as special undergraduate members at a fee of \$30.00. This entitles them to join the Glee Club, Camera Club, art classes and many other special interest groups. Apply for membership at the Graduate Office on the main floor. A limited number of athletic memberships are available on application at the Athletic Office at an additional fee of approximately \$20.00 for the academic session. Locker and towel service is available during the Summer for a fee of \$10.00 (July 1-mid-August \$2.00 refundable deposit only).

DINING FACILITIES

Dining facilities are available for students who wish to come to classes directly from their place of employment. On the St. George Campus students may use the following facilities: New College Dining Hall, Hart House Great Hall, Women's Union, University College Refectory.

ACCOMMODATION

Residences/ Women

Loretto College	Dean of Residence
St. Hilda's College	Bursar, Trinity College
St. Joseph's College	Dean of Residence
University College	Dean of Women
Victoria College	Bursar
Wilson Hall	Dean of Women

Residences/ Men

Devonshire House	Secretary
Massey College	Bursar
St. Michael's College	Director of Summer Residence
Trinity College	Bursar
University College	Dean of Men
Victoria University	Bursar
Wetmore Hall	Dean of Students

Housing Service

The University of Toronto operates a listing service of off-campus accommodation for students and staff. Enquiries regarding rooms, flats, apartments and houses should be directed to:

Housing Service
49 St. George St.
Toronto 181, Ontario

Campus Co-operative Residence

Rochdale College

The Campus Co-operative Residence, Inc., offers certain housing accommodation for undergraduate and graduate students. Since the University of Toronto has no official connections with the Campus Co-operative Residence, Inc., enquiries about accommodation available through that organization should be addressed directly to:

Campus Co-operative Residence, Inc.

341 Bloor St. W.

Toronto 181, Ontario

SUMMER ACTIVITIES

From the beginning of the Summer Day Session in July, a variety of extra-curricular activities and services will be offered for students registered in Summer Evening or Summer Day Sessions. Consult the *Summer Students Handbook*, as well as campus bulletin boards, for complete details on activities and services available during the Summer Session.

PARKING REGULATIONS

Students are strongly urged to use public transportation to the St. George Campus, as parking is limited on or near the campus.

Erindale Campus

ACADEMIC COUNSELLING

Students entering the University for the first time should meet with an academic counsellor in the Division of University Extension to discuss their academic programme. Counselling hours are arranged to meet the requirements of each student and are held at 119 St. George Street. For counselling appointments, telephone 928-2405.

LIBRARY AND STUDY AREAS

The Erindale College Library has an excellent and ever growing collection of books, periodicals, film strips, cassettes, clippings and other materials for student and staff use. In addition to this collection of some 95,000 volumes students and faculty have access to the more than two million volumes of the University of Toronto Library on the St. George campus. There is a regular book delivery service from the University of Toronto Library to the Erindale campus.

In addition the College Library has reading rooms and a number of study carrells supplied with audio-tape equipment. Numerous other study areas are located throughout the College buildings.

For the use of students in language courses there is a newly equipped language laboratory with some forty listening and recording booths.

ATHLETICS AND RECREATION

The Erindale College Athletic and Recreational Association (E.C.A.R.A.) offers a great variety of athletic and recreational activities according to student interest. In addition to facilities, clubs, etc. on the College campus all full time students have access to the use of St. George campus facilities and its athletic and recreational programmes. At present Erindale College has teams competing in the University of Toronto inter-faculty league and against other universities in various sports: basketball, ice hockey, lacrosse, soccer, volleyball, curling, field hockey, golf, judo, fencing, karate, tennis and sailing.

E.C.A.R.A. likewise organizes an extensive intramural programme of men's and women's sports and offers instruction in various recreational skills.

BUS SCHEDULES

A bus service is provided for staff and students between the College and the Islington-Bloor Subway Station, the Clarkson GO Station and the St. George campus (Convocation Hall).

ASSOCIATION FOR PART-TIME UNDERGRADUATE STUDENTS

In 1968, a questionnaire answered by degree students registered in the Division of University Extension, revealed an overwhelming desire for a student association. A steering committee worked at setting up such an association, and in late 1968 APUDS (the Association for Part-Time Undergraduate Degree Students) was born. Later the word Degree was dropped from the title.

Now, as then, the main purpose of the Association is to act as a link between part-time students registered in the Division of University Extension and the University itself. APUS also tries to act as common ground for the various part-time students themselves.

All part-time undergraduate students at the University belong to APUS, and must pay a small fee. This fee is set out in the By-Laws of the Association, and is calculated per session, not exceeding two sessions per year. There are in fact three sessions – Winter, Summer Day, and Summer Evening.

Each class, on each campus, in which a part-time undergraduate student is registered is entitled to elect at least one Class Representative per 25 students. Together the Class Representatives constitute the Assembly of Representatives.

At the annual fall meeting of the Assembly of Representatives, the twelve-man executive is elected by ballot. This twelve-man executive, having at least one member from both Scarborough and Erindale, then elect from themselves a President, two Vice-Presidents, a Secretary, and Treasurer. These five officers plus the other seven directors are the APUS executives for a period of twelve months.

As can be seen, the key link in an organizational structure such as this is the Assembly of Representatives which is composed of Class Representatives. The Class Representatives act as the communicators between their fellow classmates and the APUS executive, though the APUS executive can be reached at home.

What does a Class Representative do? Besides being a link in the communications chain, the Class Representative ensures that copies of *Voice* are made available to students, and assists in distributing Course Evaluation forms. Mainly, the function is one of passing on information.

In order to assist its members, APUS maintains a full time office during the day at 47 Queen's Park Crescent. The telephone number is 964-1535 and serves two lines, so it is rarely that a busy signal is encountered.

In this office *Voice* is printed. *Voice* is the APUS newsletter, and is printed weekly. Copies are placed in special boxes in buildings used by part-time students. Distribution is also made to Scarborough and Erindale.

APUS also prints an annual *Handbook*. This guide comes out early in the school year and contains such useful information as telephone numbers and locations of various libraries, and other worthwhile facts and dates.

Another function that APUS fulfills is in the preparation, printing, distribution, and compiling of Course Evaluations. These Evaluations are also published in *Voice*.

Communication is the prime concern of the Association. In the University community, the Association has representatives on the most important committees which directly or indirectly concern our courses of study:

President's Council

General Committee and Curriculum Committees of the Council of the Faculty of Arts and Science

Committee on Undergraduate Studies

Committee on Interdisciplinary Studies

Library Council

Campbell Implementation and Programming Committee (Disciplinary Procedures)

Presidential Advisory Committee on Instructional Media

Presidential Advisory Committee on Social Responsibilities

Presidential Advisory Committee on the Status and Future of Scarborough College

Scarborough College Council

The Curriculum Committee

The Library Committee

The Awards and Admissions Committee

The House Committee

Erindale College Council

In addition, we have two seats on the new Governing Council of the University, recently constituted in the new provincial University of Toronto Act.

APUS has also been active in the social area – in the past, wine and cheese

parties and graduation parties have been held. More social functions are planned for the future.

The future policies and goals of APUS depend on the needs and desires of its members. If you have any suggestions about the direction which APUS should take, write or phone our office, talk to your Class Representative or write to the editor of *Voice*.

Executive of APUS

ST. GEORGE CAMPUS



Faculty of Arts and Science

REQUIREMENTS FOR THE DEGREE

Each student in part-time attendance in the Faculty of Arts and Science devises his own programme by combining together courses chosen to fit his interests, subject only to the following:

- 1 all stated prerequisite and co-requisite requirements shall be satisfied;
- 2 any two half-courses are equivalent to one full course; they may be from different subjects.

FIRST YEAR PROGRAMME

A student shall be said to have completed a First Year programme when he has obtained standing in five courses designated as being available to First Year students.

A student may not begin any course not offered to First Year students until he has either:

- 1 completed a First Year programme, or
- 2 obtained standing in four courses of a First Year programme with an overall average (in these four courses) of at least 60%.

SECOND YEAR PROGRAMME

A student shall be said to have completed a Second Year programme when he has obtained standing in ten courses, at least three of which must be 200- or higher-series courses.

THIRD YEAR PROGRAMME AND REQUIREMENTS FOR THREE-YEAR DEGREE

A student shall be said to have completed a Third Year programme and shall be entitled to receive a Bachelor of Arts or Bachelor of Science degree when he has:

- 1 obtained standing in fifteen courses at least eight of which must be 200- or higher-series courses;
- 2 a final mark of 60% or better in each of at least eight of the fifteen courses. Of these eight at least four must be 200- or higher-series courses;
- 3 for a Bachelor of Science degree, included in the eight or more required 200- or higher-series courses at least six courses offered by one or more of the following departments: Astronomy, Botany, Chemistry, Computer Science, Geography,* Geology, Mathematics, Physics, Psychology, Zoology or certain courses offered by other faculties.

When the degree is conferred, the designation 'Bachelor of Arts (Three-Year)' or 'Bachelor of Science (Three-Year)' will appear on his academic record.

*For a list of acceptable courses, consult the Department of Geography.

General Arts Course

- 1 Students in the General Arts Course in Extension who by April–May 1969, were enrolled in at least their eleventh course are required to complete their First Year by obtaining standing in six courses and their Second Year by obtaining standing in five courses including two courses in a subject of concentration, but are not required to fulfil subject group requirements.
- 2 Students with eleven courses or more, who had not completed their second year subjects of concentration by August of 1969 will be able to substitute any second year course (in the field of concentration) which has not already been taken, unless otherwise specified.
- 3 Students in the General Arts Course in Extension who by April–May 1969, have been enrolled in at least eleven courses will complete their Third Year under the same conditions as students who enrolled full time in the Third Year of the General Arts programme (16 credits for the degree).

FOURTH YEAR PROGRAMME AND REQUIREMENTS FOR FOUR-YEAR DEGREE

A student shall be permitted to enter a Fourth Year programme only if he has completed the requirements for a bachelor's degree as described above.

- 1 A student shall be said to have completed a Fourth Year programme and shall be entitled to have the designation 'Bachelor of Arts (Four-Year)' or 'Bachelor of Science (Four-Year)' entered on his record when he has:
 - a qualified for a 15-course degree;
 - b at the first six attempts completed an additional five courses, no more than one of which may be a 100-series course;
 - c obtained a final mark of 60% or better in each of at least four of the five courses;
 - d for a Bachelor of Science degree, included in the twelve or more required 200- or higher-series courses at least nine courses offered by one or more of the following departments: Astronomy, Botany, Chemistry, Computer Science, Geography*, Geology, Mathematics, Physics, Psychology, Zoology or certain courses offered by other faculties.
- 2 For the degree of Bachelor of Commerce a student must have:
 - a qualified for a 15-course degree;
 - b obtained standing in twenty-three courses as prescribed below and as outlined for the Programme in Commerce and Finance;
 - c obtained a final mark of 60% or better in each of at least four of the six courses in his fourth year and in at least seventeen of the twenty-three courses in his four-year programme.

NOTE: The twenty-three courses must include at least seven courses in Commerce, at least seven courses in Economics, and at least four courses in other than Commerce or Economics two or more of which must be taken in second or later years. The required Commerce courses include Financial Accounting, Managerial Accounting, Information Systems & Control, and Corporation Finance. The required Economics courses include Introductory Economics, Microeconomic Theory, Macroeconomic Theory,

*For a list of acceptable courses, consult the Department of Geography.

Statistics, Economic History (or History of Economic Thought) and one advanced course with an analytical emphasis. The required courses in other than Commerce or Economics must include a course in Mathematics (calculus). A sixth course taken in first year will not count as one of the twenty-three courses required in the Programme. In each of the second, third and fourth years six courses must be taken through the first and second terms. No more than eight 100-series courses can be taken in the four-year programme.

FULL TIME STUDENTS

Students who obtained standing in the First Year of full time study, must, in addition to completing that year, obtain standing in ten courses in order to fulfil the requirements for the degree. Students who obtained standing in the First and Second Years of full time study, must, in addition to completing those years, obtain standing in five courses in order to fulfil the requirements for the degree.

GENERAL REGULATIONS

- 1 Part-time students in the Faculty of Arts and Science may register for a maximum of three full courses in the Winter Session, and a maximum of two full courses in the Summer Session (Summer Evening Session and Summer Day Session combined).
- 2 Credit will be retained for any half-course successfully completed and discredit noted for any half-course failed.
- 3 In order to be considered as a candidate for a degree from the University of Toronto, a student must obtain standing in his last five courses at this University.
- 4 Part-time students normally enrol in the Winter Evening Session, but with the permission of the Division of University Extension and the Department concerned, such students may enrol in the Winter Day Session. Students wishing permission should consult the Division of University Extension.

PROBATION, SUSPENSION AND REFUSAL OF FURTHER REGISTRATION IN THE FACULTY

- 1 A student will be placed *on probation* if:
 - a he fails two or more courses in any session, or
 - b at the end of any session (Winter or Summer) including or subsequent to that in which the fourth course is attempted he has obtained a grade of C (or higher) in fewer than 50% of his course attempts since beginning studies leading to the degree. Under these circumstances he will be warned that he must (re-)gain the required 50% of C's by the end of the next comparable academic session.
- 2 A student will be *suspended* from the Faculty for *one* calendar year if:
 - a while on probation he fails two or more courses, or

- b he does not (re-)gain the required 50% of C's within the specified period on probation.
- 3 A student will be *suspended* from the Faculty for *three* calendar years if:
 - a he fails six courses
 - b he fails to satisfy the requirements for a three-year degree in his first twenty attempts
 - c while on probation a second time he
 - i fails two or more courses, or
 - ii does not regain the required 50% of C's.
 - d after return from a one-year suspension he
 - i fails two or more courses in any session, or
 - ii fails to recover the required 50% of C's by the end of the session, or, in the case where that is impossible, fails to obtain a C (or higher) in any course attempted until such time as the 50% requirement has been satisfied.
- 4 A student who wishes to return to studies in the Faculty after having incurred a three-year suspension may, after the period of suspension has expired, enrol in any one session in two courses which he has not previously attempted. If he obtains an average grade of B in the two courses, and not less than C in either, he will retain credit for these and for all courses in which he was previously successful and he may re-enrol to complete the remaining courses required for the degree on the condition that he records no failures. A failure in a course after return from a three-year suspension or failure to obtain the specified level of performance in the first two courses attempted after such a suspension will result in refusal of further registration in the Faculty.
- 5 A Special Student whose record is unsatisfactory may be refused further registration in the Faculty.

THE PROGRAMME IN ARTS AND SCIENCE

The curriculum in Arts and Science is based on the principle that all students should be allowed access equally to academic resources of the highest quality and the greatest range, so that they can investigate many fields of learning and develop their own particular intellectual interests and abilities. In the First Year, the curriculum encourages a broad investigation of subjects by offering almost unrestricted choice of five of the courses available to first-year students. This freedom allows the student to pursue his own inclinations without necessarily committing himself to any specified long-term programme, while at the same time leaving open many possibilities for specialized study in higher years. Since the choice of courses and combinations of courses is largely left to the student, each in effect may follow an individual academic programme from year to year.

The building of such programmes in each year and over the three or four years of study will involve, on the part of a student, not only a prior questioning of personal ambition, values and capabilities but also a considerable investigation of the details in the curriculum of courses offered in the Faculty of Arts and Science.

There is a great variety of subjects from which to choose and of courses within subjects. When a student settles upon an area of interest, his next decision will have to do with the degree of specialization with which he will study his chosen subject. Then comes the process of selecting courses. At each stage in this process, consideration should be given to the range of his interests and, through that, to the relationships between subjects and thus the interconnections between courses.

Ideally, a programme of study should not be just a collection of courses, but, at least potentially, an organic unity. One programme might be completely diversified over five subjects in each year and a much larger number in three or four years. Another might be concentrated in one subject to the exclusion of all but a few courses in closely related fields. The majority will range between these extremes.

Some individual courses are themselves combinations of subjects, and a new series of these is being developed by the Faculty under the heading 'Interdisciplinary Studies.' In these courses the instructors come from two or more of the traditional academic disciplines and are joined with their students in the exploration of relatively new areas of study. Courses offered under Interdisciplinary Studies have code designations beginning with the letters 'INX' in the listings contained in this Calendar. Other experimental courses are offered by Innis College under the code designation 'INI.'

THE HUMANITIES

In general, the Humanities are concerned with the historical development and contemporary aspects of human experience. They examine and evaluate the ever-present relations of man to man, man to society, man to God, and man to himself. Specifically, different disciplines within the Humanities deal with language and culture, with intellectual, political, social, economic, religious and cultural history, and with the arts; in each of these areas there is a concern with man's powers of making and using concepts, and of reflecting on his own nature and condition.

In many cases, humanistic interests overlap the interests of the social scientist, who deals with the same phenomena from a different point of view and by different methods. The natural sciences, while their materials and methods are clearly distinguishable from those of the Humanities, also have an intimate bearing on humanistic problems. To attain a broad awareness of the human condition, including such vital matters as the determination of solutions and the formation of policies, the student who wishes to choose a majority of courses in the Humanities would be wise to select some courses in the Social and Natural Sciences.

The disciplines generally considered, at the University of Toronto, to fall within the Humanities include Classics, East Asian Studies, English, Fine Art, French, German, History, Islamic Studies, Italian and Hispanic Studies, Music, Philosophy, Religious Studies, and Slavic Languages and Literatures. (Students should realize, however, that some disciplines, such as History, Linguistics, Political and Moral Philosophy, and studies of particular areas

and cultures, can also be considered as Social Sciences, and that Mathematics has traditionally been regarded as an integral part of humanistic education.)

As indicated above, each of the disciplines mentioned offers a programme for students desiring to specialize. The curriculum offers wide opportunities, also, to those who wish to concentrate their studies, but who either have not yet decided to specialize, or do not wish to specialize.

THE SOCIAL SCIENCES

The Social Sciences are defined by their subject matter and by their methods. Their basic subject is the interaction of human beings in association with one another; their basic methods are analytic and descriptive; their aim is to understand human behaviour and, so far as is scientifically feasible, to predict it. Individual disciplines range widely from historical studies of civilizations, through comparative analyses of societies, to specific examinations of small groups in particular situations. The relation of man to his environment is integral to many subjects; consequently social scientists are concerned with such matters as urban life, communications, ecology, and national resources, to name but a few. In these cases and many others, there are close connections among the Social Sciences, the Natural Sciences and Mathematics, and the Humanities: for instance, a student interested in the economic aspects of ecology will find biological studies essential to full understanding of the problems; a student of communications from a sociological viewpoint will benefit from a study of language and linguistics; a student working towards a complete picture of national resources policy will need to be aware of scientific disciplines. In defining his special interest, then, each student should examine the related areas, both within and without the Social Sciences, and seek counselling in choosing his programme.

The disciplines generally considered at the University of Toronto to fall within the Social Sciences include Anthropology, Geography, Political Economy (comprising Commerce, Economics, and Political Science), Psychology, and Sociology. As indicated above, however, many other disciplines are closely related. There are obvious links in content and approach with such subjects in the Humanities as History, Linguistics, Philosophy, Religious Studies; with those disciplines dealing with the culture of civilizations, such as East Asian Studies, and Islamic Studies; and with the language departments. On the other hand, there are equally obvious links with Mathematics and Computer Science, which supply essential methodological tools and with the Natural Sciences (certain investigations in Psychology, for example, overlap similar ones in Biology). It should be noted that programmes in Psychology and in Physical Geography can qualify for the BSc degree.

THE NATURAL SCIENCES AND MATHEMATICS

Science, the study of natural phenomena, embraces a broad spectrum of subjects ranging from Mathematics, Physics, and Astronomy, through Chemistry and Biochemistry, to the Biological or Life Sciences. The science

departments of the Faculty of Arts and Science offer courses in almost every band of this broad spectrum; these are designed not only for students who want to specialize in a particular science or group of sciences, but also for students who are interested in a less intensive study of a wider range of sciences, and for those whose primary interests lie in the Humanities or Social Sciences. For each of these groups there is opportunity to discover what prompts the specialist to follow a scientific discipline, what part science plays in the contemporary world, how it contributes to our welfare and modes of living and thinking, and what problems it raises and attempts to solve for this and succeeding generations.

The student who seeks a broad programme of many sciences, or who wants to specialize in a single one or in an interdisciplinary combination, should be aware of the interdependence of the sciences. For all of them Mathematics is an indispensable tool in developing logical frameworks of understanding from experimental data and in devising experimental tests of hypotheses. Specialists in Physics, Astronomy, and Physical Chemistry might require a greater breadth of competence in Mathematics than would specialists in the Biological or Life Sciences, but in these latter areas there are exciting opportunities for the application of Mathematics. Ecology, for example, presents such an opportunity. A glance at the section of this Calendar entitled 'Suggested Programmes of Study' will show how Mathematics can be combined with other sciences; all such combinations are active fields of study today. Even in the most intensely mathematical of the sciences, it should be noted, there are differences of degree, depending on the student's inclination to theoretical or experimental aspects; certainly the student aiming at theory should take as much Mathematics as possible, without neglecting, of course, the basic science to which he wishes to apply his mathematical skills.

Computer Science, which formerly was listed under 'Mathematics,' has now been established as a separate department of the Faculty.

Geology and the Life Sciences are sometimes regarded as 'derivative sciences' in the sense that their investigations of the earth and the organisms on it rest upon a basic foundation of Mathematics, Physics, and Chemistry. Preparation for these fields should begin, therefore, with a programme that includes Calculus, Chemistry, and Physics; those interested in the Life Sciences (i.e. Biochemistry, Biology, Botany, Microbiology, Physiology, and Zoology) should add BIO 100 or 120. Such a broad First Year programme will give the student entry into a science programme of any degree of speciality or generality in Second Year.

Students seeking a one- or two-year preparation for professional work in other Faculties such as Dentistry or Medicine are advised to consult those Faculties about their requirements.

Students who do not seek to specialize intensively may combine many science courses in various ways to suit their interests, both with reference to the subject matter and the depth to which it is probed. Those intending to take a majority of courses in the Sciences should note that without Mathematics A in Grade 13 their choice will be severely limited.

SUGGESTED PROGRAMMES OF STUDY

The following selection of suggested programmes of study is presented here primarily to show how programmes can be created so as to achieve a particular emphasis in some specific field. These give a recommended first-year programme, and, in many cases indicate programmes that would be devised by a student in his second, third and fourth year who wishes to specialize in a given discipline or certain combinations of disciplines. Many of these reproduce in the New Programme the degree of specialization that was present in many of the previous "Honour Courses"; some show new specialization opportunities that the New Programme's flexibility now makes possible.

The list below offers examples of what can be done: it is by no means complete; indeed one could not list all the variants that are possible within a given programme to achieve special emphasis in a particular aspect of the subject. In general, the programmes suggested below list fewer than the five courses that a year's programme must comprise; this is deliberate, for students may specialize and at the same time follow other interests not directly related to the field of specialization, or, alternatively, specialize even more completely, if they wish to do so.

B.A. Programmes

The following suggested programmes of study in Languages and Literatures, the Humanities and the Social Sciences lead to a Bachelor of Arts (B.A.) degree. They are listed alphabetically.

CHINESE STUDIES

(Consult Department of East Asian Studies)

Many different combinations are possible and students should consult departmental advisers in planning their programmes of study.

Recommended first-year preparation: EAS 100

Second year: EAS 200/206, and one other EAS course

Third year: EAS 332/335, and two other EAS courses of which one should be a language course

Fourth year : three courses in EAS of which two should be language courses

CLASSICS

(Consult College Departments of Classics)

Recommended first-year preparation: one course in each of GRK and LAT. Students with Grade 13 GRK should take two of GRK 120F–123S; those with Grade 13 LAT two of LAT 120F–123S

Second year: two courses in each language in the 200-series

Third and fourth years: two courses in each language in the 300/400 series

Note (1): LAT 222 (Mediaeval Latin) and the courses in Modern Greek (GRK 150, 155, 250, 350) may not be counted as part of this programme.

Note (2): A student without secondary school GRK should take GRK

100 in first year and include two of GRK 120F–123S among his second-year choices. He may include a GRK 200-series course among his third-year courses.

Note (3): A student with Grade 12 LAT but without Grade 13 LAT should take LAT 130 in his first year and include two of LAT 120F–123S among his second-year choices.

Note (4): A student without secondary school LAT should take LAT 100 instead of LAT 130.

ECONOMICS

(Consult Department of Political Economy)

The programme in Economics requires standing in at least ten full courses in Economics, Mathematics and Statistics of which at least eight are in Economics.

Students taking this programme must enrol with the Department of Political Economy.

Recommended first-year preparation: ECO 100 & MAT 134

Second, third and fourth years: students must take all of the following: ECO 200/241S, ECO 202 or (204F/240F and 205S/329S), ECO 220/STA 232, ECO 332 or (325F and 326S), ECO 322, ECO 423, at least one course in Economic History (ECO 101 may be taken in first year)

ECONOMICS AND MATHEMATICS

See under B.Sc. Programmes, Mathematics and Economics

ENGLISH

(Consult College Departments of English)

For this twenty-course programme a student is required:

- a) to take at least ten and not more than fifteen courses in ENG,
- b) to achieve an average of B or better in the basic programme of the ten courses (as set out below), and
- c) to complete at least five courses outside the Department of English by the end of his fourth year.

The basic programme of ten courses consists of one course from each of the following groups:

ENG 200/300/312/404

ENG 102/302/304/413

ENG 212/332

ENG 108/328/338/348/419

ENG 306/415

ENG 308/346/368/417

ENG 322/324

ENG 152/218/350/352/354/356

ENG 466/467/469

One other course in ENG not in any of the above groups or a second course from any of the preceding groups.

A student's basic programme may not include more than two 100-series courses.

ENGLISH AND ONE OTHER SUBJECT

(Consult Departments of English, and of the other subject)

This programme is recommended for double teaching certification.

One course from each of the first four groups listed above and one course from each of the following groups:

ENG 306/322/415

ENG 308/346/368/417/324

One other course in ENG not in any of the above groups or a second course from any of the preceding groups.

A student's basic programme may not include more than two 100-series courses.

ENGLISH AND LATIN

(Consult Departments of English and Classics)

Recommended first-year preparation: LAT: as under Classics

Second year: LAT: two courses in the LAT 200-series

Third year: LAT: two courses in the LAT 300/400-series

Fourth year: LAT: two courses in the LAT 300/400-series

Note: LAT 320 and LAT 323/420 must be included in the overall programme. For the English requirements see the programme for English and One Other Subject.

FINE ART—HISTORY OF ART

(Consult Department of Fine Art)

The total programme requires a minimum of eight courses in History of Art. By the end of the second year students should have acquired a reading knowledge of two of French, Italian or German.

Recommended first-year preparation: FAR 200 and one of FAR 100, 101, 102

Second year: FAR 201 and any of FAR 100–102 not already taken

Second, third and fourth year programmes should include at least four of FAR 202, 220, FAR 300- and 400-series courses in History of Art, EAS 226, 425S, ISL 105S, 311, JES 126, NES 281F, 282S, 481.

FINE ART — STUDIO

(Consult Department of Fine Art)

The total programme should include at least eleven courses in FAR, of which four must be in History of Art and at least seven should be in Studio work.

Recommended first-year preparation: FAR 101, 102, 110

Second year: FAR 200 & FAR 230/235

Third and fourth year programmes should include FAR 201 and at least five of FAR 235 (if not already taken), 330, 332, 333, 430, 432

FRENCH LANGUAGE AND LITERATURE

(Consult Department of French)

The specialist programme requires standing in a minimum of ten FRE courses taken as part of a four-year programme. No more than two of these courses may be from each of the following groups: FRE 120–142; FRE 290, 390, 490; FRE 425–469. At least two of these courses must be from those listed as “Courses open to third- and higher-year students” and “Courses open to fourth-year students”. A mark of at least 70% must be achieved in each of at least seven FRE courses. It is highly recommended that a student take at least four courses outside the French Department. In addition, a student must meet the following requirements:

- 1 In language proficiency;
 - a) pass a special University examination in written French; and
 - b) pass a University oral examination. (Normally both of these are taken in the Third Year.)
- 2 In French linguistics, successfully complete at least one of FRE 372, 373, 374, 375, 476 or Independent Study (FRE 290, 390, 490) or an Inter-College Option (FRE 425–469) on a linguistic or stylistic topic. (Students planning a teaching career are strongly encouraged to take FRE 372.)
- 3 In literature, successfully complete at least four literature courses (not including FRE 120), one of which must be primarily devoted to texts prior to 1800, and one of which must be primarily devoted to texts after 1800.

Subject to the usual prerequisites, the above requirements may be fulfilled in any order the student wishes and the number of French courses taken each year may be determined by the student. The French Department recommends the following programme:

Recommended first-year preparation: FRE 120 & FRE 140/142. Students intending to take upper-level literature courses are urged to take FRE 140/142.

Second year: two or more courses from the courses listed as “Courses open to second- and higher-year students” (except FRE 200 & 300).

Third year: two or more courses from the courses listed as “Courses open to second- and higher-year students” (except FRE 200 & 300) and “Courses open to third- and higher-year students”.

Fourth year: two or more courses from courses listed as “Courses open to second- and higher-year students” (except FRE 200 & 300), “Courses open to third- and higher-year students”, and “Courses open to fourth-year students”.

Care should be taken to avoid selecting courses which duplicate the content of previous or concurrent courses.

FRENCH AND ANOTHER SUBJECT

(Consult Department of French and of the other subject)

The requirements for double-specialization in French and another subject (e.g. in Modern Languages and Literatures) are the same as above, except that a minimum of seven courses in French is required, of which at least

three must be literature courses. Only one Independent Study and one Inter-College Option may be counted towards specialization. A mark of at least 70% must be achieved in each of at least five FRE courses.

FRENCH AND LATIN

(Consult College Departments of Classics and French)

Recommended first-year preparation: LAT: as under Classics; FRE 120 and FRE 140/142

Second year: LAT: two courses in the LAT 200-series; two or more courses in FRE from those listed as "Courses open to second- and higher-year students" (except FRE 200 and 300)

Third year: LAT: two courses in the LAT 300/400-series; two or more courses in FRE from those listed as "Courses open to second- and higher-year students" (except FRE 200 and 300) and "Courses open to third- and higher-year students"

Fourth year: LAT: two courses in the LAT 300/400-series; two or more courses in FRE from those listed as "Courses open to second- and higher-year students" (except FRE 200 and 300), "Courses open to third- and higher-year students", and "Courses open to fourth-year students"

Note: LAT 320 and LAT 323/420 must be included in the overall programme.

GEOGRAPHY

(Consult Department of Geography)

The programme requires nine GGR courses including GGR 270/271, 320F/321S, 390F/391F, and GGR 491. This core of courses is designed so that a student may fulfil at least one course unit of the programme, in each year. For recommended sequences, see the essay under the subject "Geography".

The key course in the programme is GGR 491. All other courses should be regarded as affording the necessary background to undertake successfully the preparation and writing of the research paper.

GERMAN LANGUAGE AND LITERATURE

(Consult College Department of German)

Recommended first-year preparation: GER 110, 120. (GER 120/130 acceptable)

Second year: GER 210 and GER 220/230

Third and fourth year programmes each include two GER courses numbered above 300, and GER 322 must be included in one of these years.

GREEK

(Consult College Department of Classics)

Recommended first-year preparation: GRK 100/two of GRK 120F–123S (See under Classics)

Second year: two courses in GRK and one in LAT 200-series

Third year: three courses from GRK 320–322, 420–430, or two courses

from GRK 320–322, 420–430, and GRK 220/221; and one approved course in LAT

Fourth year: three courses from GRK 320–322, 420–430, of which at least one must be of 400-series; and one approved course in LAT

GREEK AND ANOTHER SUBJECT

(Consult Department of Classics and of the other subject)

The GRK portion of such a double programme is in principle the same as the GRK component of the Classics programme. Programmes other than Classics already approved include:

- a) Greek and English
 - (i) GRK: as under Classics
 - (ii) ENG: as under English and One Other Subject
- b) Greek and Philosophy
 - (i) GRK: as under Classics, except that GRK 321 & 421 must be included
 - (ii) PHL: six or seven courses

GREEK AND ROMAN HISTORY

(Consult College Department of Classics)

Students wishing a three-year degree should take two GRH courses in each of second and third year, together with four courses in GRK and LAT with at least one in each language.

Students wishing a four-year degree should take two GRH courses in each of second, third and fourth year, together with a total of six courses in GRK and LAT (at least one in each language to be completed by the end of the third year).

HISTORY – MODERN HISTORY

(Consult Department of History)

The programme consists of an academically coherent combination of courses chosen after consultation with departmental advisers so as to meet the following requirements:

- a) a minimum of nine courses in HIS (courses from other departments – normally not more than three – may be substituted for HIS courses with the approval of the Programme Committee);
- b) the nine courses to be chosen from a minimum of three areas of study (e.g. Canadian, British, American history, etc.);
- c) in each of two areas a minimum of two 300- or 400-series courses must be chosen;
- d) of the nine courses at least two must deal exclusively with periods preceding the year 1815.

(The former Specialist regulations, seven courses in HIS not including HIS 100, continue to apply to students who entered the University in September 1969, or before).

Recommended first-year preparation: one 100-series course

Second year: two or more HIS courses

Third year: at least two 300- or 400-series HIS courses

Fourth year: at least two 300- or 400-series HIS courses

INDIAN STUDIES

See Sanskrit and Indian Studies.

ISLAMIC STUDIES

(Consult Department of Islamic Studies)

The total programme requires a minimum of nine courses in ISL, of which at least three shall be language courses. REL 408F (Pre-Islamic Arabia) may be counted.

Students who intend to enrol in this programme are urged to contact the Undergraduate Secretary as soon as possible, and in any case not later than the end of their first year.

Recommended first-year preparation: ISL 214

ITALIAN

(Consultant Department of Italian and Hispanic Studies)

Recommended first-year preparation: ITA 100/110/120Y/190Y

Second year: two 200-series ITA courses, including ITA 220/221/290Y

Third and fourth years: six ITA courses, including ITA 321 and, for non-matriculants, ITA 320

ITALIAN AND ANOTHER SUBJECT

(Consult Departments of Italian and Hispanic Studies, and of the other subject)

As under the Italian programme with only four ITA courses required in third and fourth years together.

Students in Italian and Latin should include LAT 320 and LAT 323/420.

See also Languages and Literatures

JAPANESE STUDIES

(Consult Department of East Asian Studies)

Recommended first-year preparation: EAS 120 & 124

Second year: EAS 220, 222, 224

Third year: EAS 320, 322, 206/323/327

Fourth year: EAS 420, 426, and two of EAS 335, 421 (422F & 423S), 433Y, 424S, 425S (and EAS 206 if not taken previously)

LANGUAGES AND LITERATURES

Many programmes can be devised which combine modern languages, ancient languages, or modern and ancient languages together. The pattern for such combinations could be basically the same, i.e. two courses (where offered) in each of the two languages chosen in each of the second, third and fourth years, the fifth course remaining a free choice.

- a) Courses are offered (not all in three or four year sequences) in the following modern languages: Arabic, Chinese, Czech (& Slovak), English, French, German, Greek, Hebrew, Hindi, Italian, Japanese, Marathi, Mohawk, Persian, Polish, Portuguese, Russian, Serbo-Croatian, Spanish, Turkish, Ukrainian, Yiddish.

- b) Courses are offered (not all in three or four year sequences) in the following ancient languages: Akkadian, Classical Arabic, Aramaic-Syriac, Chinese, Egyptian, Greek, Hebrew, Classical Japanese, Latin, Pali, Sanskrit, Slavonic.
- c) Interesting combinations can be devised within (a), within (b), or by combining courses from (a) and (b).
- d) Courses are offered also in Linguistics and in joint Anthropology and Linguistics.

The Department of Education lists a number of combinations of language courses which lead to Interim High School Assistant's Certificates, Type A. See the section of this calendar entitled Type A Certification.

LATIN

(Consult College Department of Classics)

Recommended first-year preparation: one course in GRK and one in LAT (See under Classics)

Second year: two courses from LAT 200-series, one course from GRK 200-series

Third and fourth years: three courses from LAT 300/400-series, one approved course in GRK. LAT 320 and LAT 323/420 must be included

LATIN AND ANOTHER SUBJECT (*except Greek*)

(Consult Departments of Classics, and of the other subject)

Recommended first-year programme: one course in LAT (See under Classics)

Second year: two courses in the LAT 200-series

Third year: two courses in the LAT 300/400-series

Fourth Year: two courses in the LAT 300/400-series

Note: LAT 320 and LAT 323/420 must be included in the overall programme

Approved programmes other than Classics include:

English and Latin

French and Latin

Italian and Latin

Spanish and Latin

LATIN AMERICAN STUDIES

(Consult Department of Italian and Hispanic Studies)

Recommended first-year preparation: GGR 100/110/220; HIS 101, SPA 100/120. One of ANT 100, 150, ECO 100, JAL 100, POL 101/103, SOC 101

Second year: GGR 242, HIS 290, SPA 220/221Y and SPA 280Y. One of ANT 204*, ECO 200, FRE 120, JAL 100, FRE 120, POL 200*, 208, 305, PRT 100, SOC 201*, 203-210, STA 222

Third year: PRT 100, SPA 320Y and one of SPA 380F, 381S, 461F, 466F, 470Y, 482S, 484Y, 486F. Two of ANT 340; ECO 324, 328; GGR 101, 102, 220, 222S, 224, 328S, 342F; HIS 393F, 394S; POL 304F,

305, 320; SOC 301, 302, 304, 305, 307, 311, 313, 315, 323

Fourth year: PRT 220, SPA 420Y and a 300- or 400-series SPA course. Two of ANT 441, 443; ECO 324, 328; GGR 101, 220, 222S, 338Y, 342F; HIS 393F, 394S, 491; POL 417; SOC 401, 402

Note: Students should consult the Departments concerned when making their choice; courses marked with an asterisk (*) are strongly recommended if later specialized work in one of the disciplines is contemplated. Students may also emphasize one or two of their disciplines by doubling or tripling courses in any year.

LINGUISTICS

(Consult Professor J.K. Chambers, Centre for Linguistic Studies)

There is no fixed programme in Linguistics alone. Instead, appropriate programmes are created (with advice when asked for) by the students, who are encouraged to combine Linguistics and some convergent area(s) such as ancient and modern languages, anthropology, computer science, English, mathematics, philosophy, psychology, etc. Five or six LIN and JAL courses comprise the normal component for a combined programme. A student is advised to take no more than eight LIN and JAL courses in an undergraduate programme.

The admission requirements for the one-year M.A. programme in Linguistics can be completed within any three undergraduate years. The requirement are: JAL 100, LIN 228F & 229S, 230, 326 (or EAS 100/120/ISL 216/NES 142), and two other LIN or JAL courses: in place of one or both of these latter two, permission is regularly given to substitute courses such as ANT 222 and PSY 224F.

LINGUISTICS AND MATHEMATICS

See under B.Sc. programmes, Mathematics and Linguistics

MODERN LANGUAGES AND LITERATURES

See Languages and Literatures

MUSIC

(Consult Advisers in the Faculty of Music)

Recommended first-year preparation: MUS 100/122, 140, HIS 102/103, GER 130/105

Second year: MUS 222, 240, ITA 120Y/100/LAT 100, PHL 203S, GER 205 (if GER 105 was taken in previous year)

Third year: MUS 322; MUS 340 and 343Y are strongly recommended additions

Fourth year: MUS 422; MUS 443 and other MUS courses are strongly recommended additions

NEAR EASTERN STUDIES

(Consult Department of Near Eastern Studies)

Recommended first-year preparation: NES 100, NES 141/142/ISL 214

Second and third years: a minimum of six courses in Near Eastern History and Near Eastern Languages (which may be taken to include Arabic; see under Islamic Studies). At least two of these six must make a two-year sequence in one Near Eastern Language (including Arabic). If only six courses in NES or Arabic are taken in the second and third years, two further courses are required in cognate subjects, approved as such by departmental advisers, that are taught in other departments (e.g. courses in ANT, FAR, GLL, GRH, GRK, HIS, ISL, LAT, LIN, modern languages and literatures, PHL, REL, SOC). If the second- and third-year programme includes seven courses in NES, then one course in a cognate subject is required.

Fourth year: three courses in NES; one course in a cognate subject (with departmental approval). At least two of these four courses must be in two different languages.

PHILOSOPHY

(Consult University Department of Philosophy)

The total programme requires the successful completion of eighteen half-courses in Philosophy (100-level courses count as two half-courses), at least half of which must be drawn from above the 200 level. It is strongly recommended that these include at least two courses in Logic, two 300-level courses in the History of Philosophy, and two 300-level tutorial courses.

PHILOSOPHY AND GREEK

See Greek and Philosophy

PHILOSOPHY AND MATHEMATICS

See B.Sc. programmes, Mathematics and Philosophy

PHILOSOPHY AND PHYSICS

See B.Sc. programmes Philosophy and Physics

PHILOSOPHY (ST. MICHAEL'S COLLEGE)

See essay under PHI – Philosophy (St. Michael's College)

POLITICAL SCIENCE

(Consult Department of Political Economy)

The programme requires standing in at least ten courses in Political Science, of which at least eight must be 200- or higher-series courses, taken as part of a four-year programme.

Students taking this programme must enrol with the Department of Political Economy.

Recommended first-year preparation: POL 100/101/102/103/104 or two of these courses. Students will find ECO 100 particularly useful.

Second, third and fourth years: students must include the following in their programmes:

- a) at least two courses in Political Theory from POL 200, 307, 320, 329, 330, 400, 401, 402, 403, 421, 424, 427
- b) at least one course from each of four of the following five fields:
 Comparative Politics (Developed Countries)
 Comparative Politics (Developing Countries)
 International Relations
 Political Behaviour
 Canadian Government and Public Administration

RELIGIOUS STUDIES

(Consult Combined Departments for Religious Studies)

Specialist certification is reserved for those whose curricular base is primarily within the courses of the Combined Departments, who have demonstrated a versatility within religious studies, a special degree of sophistication within at least one area of the discipline, and a high standard of performance.

Specifically, specialist certification requires a minimum of ten courses in Religious Studies or officially recognized equivalents, including demonstrated ability in courses falling in a limited number of specified areas and in a field of special concentration. The further details of specialization requirements may be found in the Religious Studies brochure, published in the spring of 1972 and available through College Departments of Religious Studies, College Registrars, and the Academic Secretary of the Combined Departments. Students contemplating specialization should contact the Academic Secretary.

RUSSIAN LANGUAGE AND LITERATURE

(Consult Department of Slavic Languages and Literatures)

The programme requires ten SLA courses over four years.

Recommended first-year preparation: SLA 100/121

Second, third and fourth years: the core of six other courses consists of SLA 220, 240, 320/321, 340, 420, 440. Matriculants should include two courses from SLA 121 and other 400-series courses instead of SLA 220.

In addition, any three courses in Russian are required.

Note (1) The seven Russian "core" courses listed above are the requirement for the Russian component in double-specialization.

Note (2) An average of 70% will be required in 300- and 400- series courses.

SANSKRIT AND INDIAN STUDIES

(Consult Department of Sanskrit and Indian Studies)

Recommended first-year preparation: SIS 110

Second year: SIS 210 and one other course in SIS

Third year: SIS 310 and two other courses in SIS

Fourth year: SIS 410 and two other courses in SIS

SLAVIC LANGUAGES AND LITERATURES

(Consult Department of Slavic Languages and Literatures)

The programme requires eleven SLA courses over four years.

Recommended first-year preparation: SLA 121, one of SLA 205–208, 211, 215–218. Students without Grade 13 Russian should take SLA 100, one of SLA 211, 215–218

Second, third and fourth years:

- a) The remainder of the seven core courses listed under “Russian Language and Literature”
- b) Three courses, including one 400-series course, in another Slavic language and Literature (Czech, Polish, Serbo-Croatian or Ukrainian)
- c) One course chosen from SLA 211, 212, 213, 215–218, 311, 312, 313, 316, 330, 332, 341, 342, 361F, 362S, 430, 442, 443. Note however that only one of SLA 215–218 may be counted toward the required eleven courses.

Note (1) An average of 70% will be required in 300- and 400-series courses

Note (2) No student may include in his five course programme for standing in any year more than two of the following language courses offered by the Department: SLA 100/121, 205, 206, 207, 208, 220, 305, 306, 307, 308, 320/321, 420/421. In rare cases, where a particular academic programme warrants it, exceptions may be made by the Undergraduate Secretary of the Department.

Note (3) No two Slavic languages may be *begun* in the same academic year, that is no two of SLA 100, 205, 206, 207 or 208 may be taken concurrently.

SOCIOLOGY

(Consult Department of Sociology)

Programmes may be selected within the discipline of Sociology. Students are encouraged to combine their Sociology courses with those offered in other disciplines or the interdisciplinary programme. Subject themes which lend themselves to this approach include Canadian Society, Interpersonal Relations, Political Sociology, Social and Economic Organization, Urban Studies, Environmental Studies, Comparative Social Organization and Latin American Studies. Many other combinations are possible, and can be arranged in consultation with the Sociology Department and other departments concerned. Students who wish to concentrate on a special area of Sociology should consult the Supervisor of Undergraduate Studies about their programmes.

The Programme in Sociology requires four full years. Students who wish to complete this programme should enrol in the Department of Sociology at the beginning of their third and fourth years. A minimum of seven courses in Sociology is required, including SOC 203/313/401, as well as SOC 200/201 or both, and at least two 300- or 400-series SOC courses. The following courses will be regarded as an equivalent of SOC 201 in

satisfying the requirement: STA 222, ECO 220, GGR 270. Completion of the Programme in Sociology will be formally acknowledged on the student's transcript. Students contemplating entrance to a Type A certificate programme at the College of Education should complete at least *nine* courses in four years.

Note: Students who are in their third year in 1972–73 may be considered to have completed the specialist programme in Sociology under the regulations specified in the 1971–72 Calendar.

SPANISH

(Consult Department of Italian and Hispanic Studies)

The programme requires nine courses in Spanish.

Recommended first-year preparation: SPA 100/120

Second year: SPA 220/221Y, 225Y; one or two of SPA 236S, 246F, 256Y

Third and fourth years: SPA 320Y, 420Y, 425Y; two of SPA 333F, 343Y, 353Y; three of SPA 356Y, 380F, 381S, 436S, 446S, 456Y, 461F, 466F, 470Y, 482S, 484Y, 486F

Two additional courses in Spanish must be taken, excluding SPA 195, 200, 300

SPANISH AND ANOTHER SUBJECT

(Consult Department of Italian and Hispanic Studies, and of the other subject)

Seven courses in Spanish must be taken, excluding SPA 195, 200, 300.

Students are advised to follow the programme listed above.

See also Languages and Literatures, Latin and Spanish, and Latin American Studies.

B.Sc. Programmes

The following suggested programmes of study in Mathematics, the Physical Sciences and the Life Sciences lead to a Bachelor of Science (B.Sc.)

degree if the required number of science courses are included in the overall programme. (See the section of this calendar entitled "Requirements for Standing".)

Although programmes involving Chemistry are listed with the suggested year of study, students are free to deviate from this yearly sequence if course requisites and timetable permit.

ACTUARIAL SCIENCE

(Consult Professor P.L.J. Ryall, Department of Mathematics)

This programme is designed to prepare a student for professional work as an actuary.

Recommended first-year preparation: MAT 134/135/139/150

Second year: ACT (223F & 233S); one of MAT 234/235/239/250; STA 232/252; (ECO 240F & 241S are recommended)

Third year: ACT (323 & 333); STA (332F & 342S & 347S)

Fourth year: ACT (423 & 433); STA 352 is recommended

ASTRONOMY AND ASTROPHYSICS

(Consult Departments of Astronomy and Physics)

Recommended first-year preparation: PHY 150; MAT 139/ (140 & 150)

Second year: PHY 220, 221S, 222F; MAT 239, 244F; APM 246S

Third year: AST 300, 310Y; PHY 300, 303F; MAT 334F; APM 346S

Fourth year: AST 400, 410Y; PHY 302, a further selection of courses in the 400-series

BIOCHEMISTRY

(Consult Department of Biochemistry – Faculty of Medicine)

Recommended first- and second-year preparation: BIO 100/120;

CHM 120, CHM (220 & 240); MAT 130/135/139/150

Third year: BCH (321 & 371Y); CHM 340

Fourth year: BCH 471, three of BCH 421S–426S

BIOCHEMISTRY AND CHEMISTRY

See under Chemistry and Biochemistry

BIOLOGY

(Consult Departments of Botany and Zoology)

A programme in Biology is suggested for students who plan to work in the broad field of Biology rather than in a biological subdiscipline. This programme is particularly appropriate for students planning careers in teaching Biology.

Recommended first-year preparation: BIO 100/120; CHM 120; MAT (other than MAT 120); PHY 110/130

Second year: five courses, with at least one in Botany and one in Zoology recommended

Third and fourth years: five courses in each year, with a year total of at least two courses in each of Botany and Zoology recommended. Students are urged to choose some of their courses from such cognate fields as Organic Chemistry, Biochemistry, Microbiology. Students are urged to take at least one of the two field courses, BIO 300F and BIO 301F

BIOLOGY AND MATHEMATICS

See under Mathematics and Biology

BOTANY

(Consult Department of Botany)

Recommended first-year preparation: BIO 100/120/BOT 100; CHM 120; MAT 130/135; PHY 110/130

Second year: at least two of BOT 201, 210, 220, and 240, a CHM 200-series course; selection from other BOT and ZOO courses, MBL 200, PHY 230. Students are advised to take one of the field courses, BIO 300F/301F at the end of the second year

Third year: at least two BOT courses selected from the 200 and 300 series and two additional courses from BOT, ZOO, MBL, BCH 320/321;

STA 232/252. Students are advised to take the alternate field course at the end of the third year

Fourth year: a selection of courses to be chosen in collaboration with the Botany staff

CHEMICAL PHYSICS

(Consult Departments of Physics and Chemistry)

Recommended first year preparation: CHM 120; MAT 139/(140 & 150); PHY 150

Second year: CHM 220/221, 230S/240; MAT 239; PHY 220, 221S, 240Y

Third year: CHM 320/321, 230S/240 (whichever not taken previously); (APM 331F, MAT 319S)/(MAT 244F, 334F; APM 346S); PHY 300, 326Y/327F/328S

Fourth year: a minimum of three 400-series PHY/CHM courses with at least one from CHM and one from PHY

CHEMISTRY

(Consult Department of Chemistry)

Recommended first-year preparation: CHM 120; MAT 135/139/(140 & 150); PHY 130/150

Second year: CHM 220/221, 230S, 240; MAT 235/239 (it is recommended that PHY 220/230 be included in either the second or third year programme)

Third year: CHM 320/321, 330, 340; one course in CHM/another Science/MAT

Fourth year: three 400-series courses in CHM; one course in Science/MAT

CHEMISTRY AND BIOCHEMISTRY

(Consult Departments of Chemistry and Biochemistry – Faculty of Medicine)

Recommended first-year preparation: BIO 100/120; CHM 120; MAT 135/139; PHY 130/150

Second year: CHM 220/221, 230S, 240; MAT 235/239. Students should consider a BOT or ZOO as a fifth course. In addition PHY 220/230 is recommended for inclusion in either the second- or third-year programme

Third year: BCH 320/321, 371Y; CHM 340, 347S, 320/321/330

Fourth year: four courses in BCH or CHM (mostly Organic) at least three of which should be 400-series

CHEMISTRY AND MATHEMATICS

See under Mathematics and Chemistry

CHEMISTRY WITH PHYSICS

(Consult Department of Chemistry)

Recommended first-year preparation: CHM 120; MAT 139/(140 & 150); PHY 130/150

Second year: CHM 220/221, 230S/240 (students are urged to include both); MAT 239; PHY 220

Third year: CHM 320/321; 323S, 230S/240 (if not taken previously), 330/340; (APM 331F; MAT 319S)/(MAT 244F, 334F; APM 346S); PHY 221S/other PHY

Fourth year: two 400-series CHM courses; one 300/400 series PHY course; CHM 330/340/another 300/400 series course in CHM or PHY
 Note: For a balanced training in Chemistry students should take each of CHM 320/321, 330, 340

COMPUTER SCIENCE

(Consult Mrs. M. Chepely, Room 1317, Department of Computer Science, 928-6360)

A programme to prepare the student for professional or graduate work in Computer Science.

Recommended first-year preparation: CSC 148F, 158S; MAT 135/139/ (140 & 150)

Second year: CSC 258F, 248S; MAT 224F, 239; STA 232; suggested options are CSC 208S, 228F, 238S; MAT 244F

Third year: CSC 351S, 368S, 378F, 348F/MAT 345, MAT 319S; suggested options are CSC 328F, 358S; ELE 359F; MAT 344S; STA 347S

Fourth year: CSC 438F, 441F, 448S, 468F; suggested options are APM 451F, 456S; CSC 446S, 478S; MAT 464F

GEOLOGY

(Consult Professors Beales, Fawcett, Norris or Van Loon, Department of Geology; telephone 928-3021 for appointment)

By the end of the fourth year, the student intending to enter the profession of geology should have completed at least 9½ courses in geology (including some 400-series courses) and at least 5½ courses in other sciences and mathematics

Recommended first-year preparation: CHM 120; CSC 148F/(108F/Y); GLG 120; MAT 130/134/135/139 and a selection from AST 100; BIO 100/120; GLG 102, 121F; PHY 130/150

By the end of the third year, the following should have been completed (minimum requirement 15 courses):

- a) 5½ courses in Geology consisting of: GLG 120, 220, 320, 321F, 322 and at least one of GLG 222, 324, but preferably both
- b) at least 5½ additional courses selected from: BIO 100/120; BOT 210; CHE (217F + 218S)/CHM 230S; CHM 120, 220/221; CSC (148F)/(108F/Y); MAT 130/139, 230/239; PHY 130/150; 230/(220 + 221S); ZOO 220, 250, 253

Other desirable courses for enrichment of the basic programme include: AST 100/120; GGR 301, 311S; GLG 102, 121F, 221S, 323Y, 326Y, 327S, 328, 370Y, 371Y, 372Y; PHY 225F, (308 & 324Y); ZOO 464
Fourth year: at least four geology courses from the 300- and 400-series

MATHEMATICAL PHYSICS

(Consult Professor D. Masson, Department of Mathematics)

Recommended first-year programme: MAT (140 & 150); PHY 150

Second year: MAT (240F & 250); APM 251; PHY (220 & 221S)

Third year: MAT (340/350) & 330; APM 351; PHY (300 & 302)

Fourth year: APM 421F/APM 426S; a selection of advanced Mathematics and Physics courses; students should see the adviser (see above)

MATHEMATICAL STUDIES

(Consult Professor N.A. Derzko, Department of Mathematics)

This programme provides a broad training in mathematics without the special emphasis on analysis that is necessary for many graduate programmes in mathematics. It is excellent preparation for prospective mathematics teachers.

Recommended first-year preparation: MAT 139/(140 & 150); CSC (148F & 158S)

Second year: MAT 140/240F; MAT 239/250; STA 252; MAT 244F/APM 251

Third year: MAT 340/345; MAT 245S/325; one mathematics option

Fourth year: five options; students should consult the Undergraduate Secretary

MATHEMATICS

(Consult Professor N.A. Derzko, Department of Mathematics)

This programme is designed to prepare a student for graduate work in mathematics, applied mathematics, probability or statistics.

Recommended first-year preparation: MAT 140, 150; PHY 150

Second year: APM 251; MAT 240F, 245S, 250; STA 252

Third year: MAT 330, 340, 350

Fourth year: five options; students should consult the Undergraduate Secretary

Note: A student may after consultation with the Undergraduate Secretary defer any course to the subsequent year. It is recommended that students acquire a reading knowledge of at least one of German and Russian. Students wishing to follow a programme in statistics or probability should include MAT 454F in their options, as well as the courses offered in their field. Students wishing a programme in Analysis or Applied Mathematics should include MAT 435 in their options.

MATHEMATICS AND BIOLOGY

(Consult Professor J. Dainty, Department of Botany, and Professor J.E. Paloheimo, Department of Zoology)

This programme is designed to meet the increasing demand for mathematically oriented biologists.

Recommended first-year preparation: BIO 100/120/BOT 100; CHM 120; MAT 139/(140 & 150); PHY 110/130/150

Second year: CHM 240; MAT 239; PHY 230; STA 232/252; ZOO 223/BOT 230/240

Third year: CSC 148F/MAT 244F & 319S; STA 332F & 342S; ZOO and/or BOT courses

Fourth year: STA 472F (multivariate analysis); STA 477S (stochastic processes); ZOO 478F, 479S/PHY 309F, 310S

MATHEMATICS AND CHEMISTRY

(Consult Department of Chemistry and Mathematics, Professor P.G. Norton)

Recommended first-year preparation: CHM 120; CSC 148F; MAT 140, 150; PHY 150

Second year: APM 251; CHM 220/221, 230S/240, 323S; MAT 240F, 250 (PHY 220 is recommended as an extra subject)

Third year: CHM 320/321, 230S/240 (whichever not taken previously), 422F, 423S; MAT 340, 350

Fourth year: MAT 330, 1½ courses from CHM 330, 340, 420, 424F, 425S, 428, 429Y; APM 351/421F

MATHEMATICS AND ECONOMICS

(Consult Professor H. Atsumi, Department of Political Economy)

This programme provides a firm mathematical foundation for subsequent work in Economics.

Recommended first-year preparation: MAT 139/(140 & 150); ECO 100

Second year: MAT (140 & 239)/(240F & 250); MAT 244F/APM 251; STA 252; ECO (240F & 241S)

Third and fourth years: MAT 314F/350; APM (451F & 456S); ECO 332; at least four additional full courses in Economics and/or Mathematics

MATHEMATICS AND LINGUISTICS

(Consult Professor B. Brainerd, Department of Mathematics)

A programme for students interested in the application of mathematics to the study of the structure of language.

Recommended first-year preparation: MAT 134/135/139/(140 & 150); CSC 148F; JAL 100

Second year: MAT (225/224F & 234)/(240F & 250); STA 232/252; LIN 230

Third year: LIN 333 (228F & 229S); STA (332F & 342S)/357/347S

Fourth year: LIN 491; MAT 409S; an additional course in mathematics

Note: During the four years, the student should also have taken LIN 201S/JAL 300 and also one of ANT 220; LIN 348 or a spoken Indoeuropean language

MATHEMATICS AND PHILOSOPHY

(Consult Professor F. Tall, Department of Mathematics and Professor L.W. Sumner, Department of Philosophy)

This programme is designed to emphasize those aspects of each discipline which are of particular interest to the other both historically and currently.

Recommended first-year preparation: MAT (140 & 150); PHL 100

Second year: MAT 309S, 239/ (240F & 250); PHL 251S

Third year: MAT 340/345/404F; and three of PHL 350S, 351F, 352F, 354S, 380S

Fourth year: CSC 438F; MAT 420; one of PHL 450F, 451S, 452F

MATHEMATICS FOR TEACHING

(Consult Professor W.W. Sawyer, Department of Mathematics)

A programme to provide a deep understanding of elementary mathematics and a broad view of the subject and its applications. The programme should include at least eight full courses from the following: MAT 120, 220, 320, first-year calculus, second-year calculus; MAT 140/224F, 225, 235, 314F, 300/345, 420, 414F, 309S; APM 331F, 336S; STA 232; CSC 108F/Y/148F. The choice should include at least one-half computer science course, one full calculus course, and one and a half algebra courses.

Note: Courses in History, Philosophy and Psychology are suggested for inclusion in the whole programme. Any of the other suggested programmes in mathematics, or mathematics combined with another subject, is also an excellent preparation for teaching.

MICROBIOLOGY

(Consult Department of Microbiology – School of Hygiene)

Recommended first-year preparation: BIO 100/120; CHM 120; MAT 130/135/150; PHY 110/130/150

Second year: CHM 240; STA 232; selection from MBL 200; BOT & ZOO courses

Third year: BCH 320/321, 370Y; MBL 320; JBM 350

Fourth year: selection from MBL 422, 424F, 425S, 430, 431F, 432F; BIO 470E; and from BCH, BOT & ZOO courses

PHILOSOPHY AND PHYSICS

(Consult Departments of Philosophy and Physics)

This programme is designed to provide a basic background in both philosophy and physics, and an opportunity to explore their interrelations.

Recommended first-year preparation: MAT 139; PHL 100; PHY 150

Second year: MAT 239, 244F; PHL 243F, 244S, 250S, 370F; PHY 220, 222F

Third year: INX 350; MAT 334F & APM 346S; PHL 470S/471S; and two of (PHY 320S, 350S, 360S); PHY 300

Fourth year: PHL 470S/471S (whichever was not taken in third year) and two additional PHL courses; two of (PHY 400, 401, 410); and PHY 436 (under joint supervision of members of the Departments of Philosophy and Physics)

PHYSICS

(Consult Department of Physics)

Recommended first-year preparation: MAT 139/ (140 & 150); PHY 150

Second, third and fourth years: the following courses in Mathematics and Physics comprise the basis of this programme:

APM 246S, 346S; MAT 239, 244F, 334F; PHY 220, 221S, 222F, 240Y, 300, 302, 303F, 325/326Y/327F/328S, at least three 400-series Physics courses

PHYSICS WITH ASTRONOMY

See under Astronomy and Astrophysics

PHYSICS WITH CHEMISTRY

See under Chemical Physics

PHYSICS AND GEOLOGY

(Consult Departments of Physics and Geology)

Recommended first-year preparation: CHM 120, CSC 148F/148Y, GLG 120, MAT 139, PHY 150/130

Second, third and fourth years: the following courses in Physics, Geology and Mathematics comprise the basis of this programme:

APM 246S, 346S; GLG 220, 320, 321F, 322, 327S; PHY (200 & 221S)/230, 222F, 304S/300/301, 324Y, 412, 413, 420Y

Note: APM 331F & MAT 319S provide similar material to MAT 244F, 334F & APM 346S but at a rather lower level.

PHYSICS WITH MATHEMATICS

See under Theoretical Physics

PHYSICS AND PHILOSOPHY

See under Philosophy and Physics

PHYSIOLOGY

(Consult Department of Physiology – Faculty of Medicine)

Recommended first-year preparation: CHM 120; BIO100/120; MAT 130/135/139/150; PHY 150/130/110

Second year: ANA 200/ZOO (250 & 251); CHM 240; STA 232

Third year: PSL (322 & 373Y); BCH (320 & 370Y)/(321 & 371Y); ZOO 211

Fourth year: PSL 424, 427, 428, 430, 498; ZOO 441S, 442Y, 440

PSYCHOLOGY

(Consult Department of Psychology)

There is no prescribed programme for students specializing in Psychology. Students may enrol in any course offered by the Department for which they have fulfilled the prerequisites. However, students who wish to prepare for a career in Psychology are advised to build their programmes along the following lines:

Recommended first-year preparation: PSY 100/105

Second year: STA 222/232/252/PSY 230F and four or five half-courses selected from those offered at the two-hundred level. In particular, it should be noted that PSY 230F (or STA 222/232/252) is required preparation for most higher-level courses. Students seeking admission to any of PSY 320, 321, 322, 323, 315F/329S must include STA 222/232/252 in their preparation. If this has been done PSY 230F should not be included in the programme. A student who has taken PSY 230F and who later decides to seek admission to one of the above-mentioned courses, must first take STA 222/232/252 or demonstrate that he has equivalent background.

Third year: PSY 320/321/322/323 (available only to students who have included STA 222/232/252 in the second-year programme) and/or one, two or three full course equivalents chosen from courses offered at the 200–300 levels.

Fourth year: two or three full course equivalents chosen from courses offered at the 300–400 levels. Participation in one or more 400-level seminars is highly desirable. PSY 400 is recommended for students who desire research experience.

Note: Attention is drawn to the desirability of inclusion of courses in mathematics, life sciences and physical and social sciences in the programme.

PSYCHOLOGY AND PHYSIOLOGY

(Consult Professor J.A. Satterberg, Departments of Psychology and Physiology – Faculty of Medicine)

Recommended first-year preparation: BIO 100/120; CHM 120; MAT 130/135; PSY 100

Second year: STA 222/232/252; ANA 200/ZOO (250 & 251); CHM 220 & 240; PHY 110 (if not taken in first year)

Third year: BCH 321; PSL (322 & 373Y); two of PSY (223F & 243S), (206F & 311S), (324F & 211S)

Fourth year: PCL 470/PSL 424/427/ZOO (441S & 442Y); two of PSY 240S, 241S, 319F; PSL 498/PSY 400: ONE “advanced Topics” seminar in Psychology

THEORETICAL PHYSICS

(Consult Department of Physics)

Recommended first-year preparation: MAT 140, 150; PHY 150

Second, third and fourth years: the following courses in Physics and Mathematics comprise the basis of this programme:

APM 251, 351; MAT 240F, 250, 330, 350; PHY 220, 222F, 223S, 240Y, 300, 302, 326Y/327F/328S, 400, 401/402F/303F, 410

Note: This programme provides an excellent background for students planning on graduate studies in either experimental or theoretical physics.

ZOOLOGY

(Consult Department of Zoology)

There is no prescribed programme for students specializing in Zoology, and such students also may enrol in any course offered by the Department. However, students who wish to prepare for a career in Zoology are advised to build their programme along the following lines:

Recommended first-year preparation: BIO 100/120; CHM 120; PHY 110/130/150, and a first-year Mathematics course other than MAT 120

Second year: CHM 240; STA 232/252, and at least two of ZOO 211, 212, 220, 221, 222, 224, 226, 250, 251; JPZ 252. Students are advised to take one of the summer field courses (BIO 300F/301F) between second and third year

Third year: a selection from ZOO 223, 225, 253, and any other 200-series courses. Students may take one or more 400-series course(s) in their third year

Fourth year: a selection from 200- and 400-series courses

Note: Certain interdisciplinary courses (INX listings) and courses in other sciences (Biochemistry, Botany, Geography, Geology, Microbiology, Parasitology, Physiology, Psychology, etc.) are appropriate to certain fields within Zoology and thus suggested for possible inclusion in the programme.

Preparation for Study in Professional Faculties, Schools or Colleges

Students who enter the Faculty of Arts and Science in order to qualify for later admission to a Professional Faculty or School such as Dentistry, Law, Library Science, Management Studies, Medicine, Social Work, are advised to consult the appropriate Faculty or School before devising their programme of study.

MEDICINE

Students may now satisfy the admission requirements of the Faculty of Medicine by completing a two-year programme in the Faculty of Arts and Science which includes BIO 100/120, CHM 120 & 240, MAT 130/134/135/150, PHY 110/130/150. Other courses should be chosen according to the student's interests.

TYPE A CERTIFICATE

The present requirements state that a candidate for an Interim Type A certificate must be one who:

- a) has complied with admission requirements;
- b) holds a degree of Bachelor of Arts or Bachelor of Science from an Ontario university, or an equivalent degree, in a programme
 - (i) that requires four years of university study, or their equivalent, beyond Grade 13, a total of at least sixty university credits, and
 - (ii) in which the candidate has obtained at least second class or equivalent standing in each of one or two specialist fields including, in the case of two specialist fields, at least forty-two university credits with not

fewer than eighteen university credits in each of the specialist fields or, in the case of one specialist field, at least twenty-seven university credits; and

- c) has successfully completed a programme of teacher education leading to an Interim High School Assistant's Certificate, Type A.

Note: The successful completion of a course or two half-courses in this Faculty earns three credits.

The specialist fields referred to above, and listed in alphabetical order, are as follows: Agriculture, Anglais, Art, Biology, Chemistry, Computer Science, Drama or Theatre Arts, Economics, English, Français, French, Geography, Geology, German, Greek, History, Home Economics, Italian, Latin, Mathematics, Music, Physical and Health Education, Physics, Political Science, Psychology, Russian, Sociology, Spanish.

Specific questions with respect to Type A qualification should be addressed to:

**Office of Advanced Standing
The College of Education
University of Toronto
371 Bloor Street West
Toronto 181, Ontario**

COURSE DESCRIPTIONS

Key to Course Descriptions and Timetables

The session in which a course is offered is indicated after each course description. An 'X' is shown after the name of the session in which a course is offered *this year*.

Summer Evening: Summer Evening Session 1972

Summer Day: Summer Day Session 1972

Winter: Winter Session 1972-1973

Not offered: Not offered through the Division of University Extension *this year*

In the following example, ANT 204 is shown as being offered in the Summer Evening Session and the Winter Session:

ANT 204 Social and Cultural Anthropology

The study of social organization and structure including belief systems, kinship and marriage, politics and ecology.

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

If there is no suffix after an Arts and Science course number, it is a full course given throughout the session. The following suffixes indicate half-courses:

F: a half-course given in the first half of the session

S: a half-course given in the second half of the session

Y: a half-course given throughout the session

	<i>Summer Evening</i>	<i>Summer Day</i>	<i>Winter Session</i>
Full courses	May 15-Aug. 11	July 4-Aug. 11	Sept. 11-Apr. 13
F courses	May 15-June 22	July 4-July 21	Sept. 11-Dec. 8
S courses	July 4-Aug. 11	July 24-Aug. 11	Jan. 8-Apr. 13
Y courses	May 15-Aug. 11	July 4-Aug. 11	Sept. 11-Apr. 13

Courses are listed alphabetically by three-letter code (designation) and three-digit number. The designation is normally an abbreviation for the department that offers the course: however, IN followed by a third letter other than D denotes an interdisciplinary course, and J a course offered jointly by two or more departments (e.g. JAP 343 means Joint Anthropology and Political Science). The first digit of the course number normally indicates the year of most of the students in the course; thus HIS 232 is designed primarily for second-year students although it is in fact open to students in all years. The solidus symbol (/) means OR; the comma (,) or the ampersand symbol (&) means AND.

Anthropology

Chairman of Department/Professor D.R. Hughes

Undergraduate Secretary/Professor W.M. Hurley

Enquiries/Sidney Smith Hall, Room 1037 (928-3294 for appointment)

Anthropology, in the most general sense, is concerned with man's development throughout the world. Within the spectrum of the social sciences, Anthropology tends to focus on human societies that have not been or are just beginning to be influenced, directly or indirectly, by industrialism. This very broad interest has led to the division of the discipline into distinctive areas of research.

ARCHAEOLOGY

Archaeology is the study of surviving changes in the material world that are the result of the action of man. Archaeologists excavate sites, found by survey techniques, that contain remains of human activity. From the materials uncovered, classes of artifacts are established, based on analysis of form and function. The spatial and temporal relations of artifacts from a number of sites are studied. From such studies archaeologists draw conclusions about the nature of social groups, adaptations to environment, and spatial and temporal relations of the groups involved. Two important features of archaeological work are the careful observation of stratigraphy uncovered in excavation and the increasing use of highly accurate dating techniques based on physical, chemical and biological characteristics of materials found. General topics include: the origins and dispersal of early tool traditions; adaptations to cold conditions in the Ice Age; the peopling of the New World; the development of agriculture and of civilizations in the Old and New Worlds.

LINGUISTIC ANTHROPOLOGY

Linguistics is the scientific study of language. In anthropological linguistics certain aspects of language study are emphasized. One important aspect is the relation of language to culture. Here language is studied as the primary means of communication in human life. In and through language members of a community interact, and the cultural facts of a society are manifested. It plays a critical role in the transmission of culture through time.

Another important aspect of Anthropological Linguistics is language classification. Typological classification deals with the grouping of languages according to their structural characteristics. Comparative-historical classification groups languages which have evolved from a common origin (such as French, Spanish, and Roumanian from earlier Latin). Dialectology deals with the variation of language over an area. Such studies are valuable for the light they shed on pre-history. As anthropologists are often interested in the lesser known peoples of the world, linguistic field methods have come

to provide techniques for the analysis of languages which have not previously been studied.

PHYSICAL ANTHROPOLOGY

Physical Anthropology and human biology are concerned with the study of the biological evolution of man and the spectrum of human variability seen in living populations of mankind. To study the evolution of man, one studies the evolution of his primate relatives, as well as the fossil remains of earlier human populations. The study of living populations, or races of people, is accomplished through measurements of various kinds, e.g., of body proportions, of the colour of hair, eyes and skin, blood group frequencies, and the analysis of these data. Statistical techniques are used to assess the biological affinities of populations, and to help in tracing their migrations. Basic to the study of Physical Anthropology is an understanding of the laws of human genetics, and an understanding of man's ecological background. Some basic concepts of the subject are natural selection and human evolution to produce the polytypic species that is mankind today.

SOCIAL AND CULTURAL ANTHROPOLOGY

Social Anthropology is the study of the social life of man. Traditionally social anthropologists have used small scale societies, usually non-literate and isolated groups because it was easier to observe the total social life of a society. The range of topics includes political, economic and ritual behaviour as well as social sanctions including gossip. Although this model of social as opposed to individual behaviour was developed in small-scale societies, it is by no means limited to them. Recently Social Anthropology has become interested in society in general. The discipline is utilized in modern western society for the study of ethnic minorities and other units such as in factories, street-corner cliques, and political factions. The method is relevant for social analysis where the depth and intensity of small group interaction is part of the general social process. Moreover, institutions and models of social behaviour can be compared cross-culturally to establish more general concepts and trends.

Careers in Anthropology usually emphasize either theoretical, academic aspects, or practical applications of the discipline. Researchers in Anthropology are generally connected with a university or museum. Courses in Anthropology are taught at the university or college level. Most institutions involved in teaching and research require professional anthropologists who have obtained the PHD degree. Examples of the practical applications of Anthropology range from work on problems concerning the contact of groups with varied social and cultural backgrounds, to preservation of archaeological material in connection with development and expansion of regional recreation facilities. Where Anthropology is able to provide a unique contribution in practical applications, training at least to the MA level is required.

As a science emphasizing comparative study of social and cultural variation throughout the world, and man's biological background, Anthropology

offers a unique grounding for interests and studies in the Humanities, other Social Sciences, Psychology, Biological and Medical Sciences, and Geography.

There are two courses in Anthropology offered in the First Year and five courses offered in the Second Year. There are no pre-requisites for any of these, nor is there a defined programme for a student who seeks to specialize in Anthropology in the Second Year; however some second-year courses will be pre-requisites to courses in the Third and Fourth years. For instance the Introduction to General Linguistics in the Second Year is a pre-requisite for several of the advanced courses in Anthropological Linguistics. There are similar prerequisites in the other divisions of Anthropology.

In the First and Second years, and later years as well, courses in Anthropology can be fruitfully combined with courses in a wide variety of other disciplines. A few examples should make this breadth clear. A student interested in Anthropological Linguistics would find language courses in many departments relevant. A student of Physical Anthropology could strengthen his area of interest with courses in Zoology and Anatomy. An interest in Social Anthropology could be complemented with a variety of courses in Sociology. Finally the budding archaeologist might find courses in Geology important if his main interest were early man. Because of the wide scope of Anthropology, courses cannot be narrowly prescribed. Students interested in concentrating their studies in this field must be prepared to consult with Faculty advisers of the department to insure that they are following a programme suited to their interests.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

ANT 100 **Introduction to Anthropology**

An introduction to the Department and subject, stressing the unity and diversity of anthropology. In proceeding through the origins and development of homo sapiens and the living populations, the growth, diversity and structure of societies, cultures and languages, this course will cover all fields of anthropology. These are, in order of presentation, physical anthropology, archaeology, social and cultural anthropology and linguistics. Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

JAL 100 **Introduction to General Linguistics**

Lectures on fundamental principles with illustrations from English and from a broad spectrum of other languages. Tutorials for practice in production and recognition of speech sounds, and elementary analytic techniques. (See also under Linguistics.)

References: An introduction to Descriptive Linguistics and Workbook. Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

ANT 201 **North American Prehistory**

An intensive survey course of North American history from the time of man's entry into the New World to the historic period. Major prehistoric

culture areas will be presented with representative archaeological sites being discussed in depth. Major theories and approaches will be demonstrated through the medium of such study.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ANT 203 Introduction to Physical Anthropology

An introduction to the problems related to the evolution of man; past, present and future, paying particular attention to behavioural and genetical aspects. A comprehensive laboratory course is offered in conjunction with the lectures.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ANT 204 Social and Cultural Anthropology

The study of social organization and structure including belief systems, kinship and marriage, politics and ecology.

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

ANT 241 North American Indian in Transition

A discussion of the established culture areas and types existing in precontact and early contact times in North America followed by an analysis of the problems arising out of contacts between North American Indians and Euroamericans.

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

ANT 311F Archaeological Field Work

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

ANT 312S Archaeological Laboratory Analysis

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

ANT 336F Anthropological Genetics

Causes of human evolution. Genes in population: 1) An enumeration of the factors contributing to gene frequency and the development of the model of natural selection. 2) Gene frequency change: mutation, migration and random gene drift. Simple quantitative models of their effect in changing gene frequencies. Dynamics of polymorphism: inheritance of specific systems-blood groups, serum proteins, hemoglobin and enzymes. Population structure, inbreeding and outbreeding. Heredity and environment, Eugenics, euphenics and human welfare. Human population cytogenetics.

Exclusion: ZOO 211

Prerequisite: ANT 203 or department approval

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO FOURTH-YEAR STUDENTS

ANT 440 Social Change

Prerequisite: ANT 204 or departmental approval.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ANT 443 People and Cultures of Latin America and the Caribbean*Prerequisite:* ANT 204 or departmental approval.Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐**ANT 452F Ethnohistory**

An interdisciplinary approach to ethnohistory, emphasizing 1) critical evaluation of primary historical sources (writing and maps) for cultural and linguistic data, and 2) comparison and analysis of modern cultural sources, including history, genealogy, mythology, and geography (written and tape-recorded texts, vocabularies, etc.). Complementary archaeological data will be integrated where possible into this ethnographic and philological reconstruction of the prehistory and history of societies without a written historical tradition.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐**ANT 472S Problems in Ethnohistory: Eastern North America**

This seminar, open to qualified undergraduates, will investigate selected problems in the ethnohistory of the indigenous peoples of Eastern North America, especially the Iroquoian, Algonquin, and Eskimo-Aleut families. Special attention will be paid to the linguistic developments and relationships. A good reading knowledge of a relevant language (e.g., French, Latin, or Mohawk) is desirable but not required.

Prerequisite: ANT 452FSummer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

APPLIED MATHEMATICS See 'Mathematics'

Astronomy

*Chairman of Department/Professor D.A. MacRae**Undergraduate Secretary/Professor E.R. Seaquist**Enquiries/McLennan Physical Laboratories, Room 1403 (928-3149 for appointment)*

The subject has sometimes been regarded as nugatory but the modern view is quite the contrary. In all ages Astronomy has been in the background of man's thought. Its ideas pervade our literature. Trade and commerce have depended on it. And now in our own day Astronomy has become, unexpectedly, a matter of everyday concern. Its breadth in space and time and its concern both with the very large and the very small make a course in Astronomy an attractive component of any programme.

Several courses are offered to suit persons of diverse background and depth of interest. Two of the beginning courses do not require special knowledge of mathematics or the sciences. We are not concerned with formulae and detailed calculations, but rather with what the student can see with his unaided eye or with a telescope. Astronomical phenomena can be related

to occurrences on earth and explained by familiar laws of physics. Extreme conditions, though unusual, need not be mysterious.

AST 100 is presented in such a way that students can learn about the universe we dwell in even though they do not have a scientific bent. It can profitably be taken in either First or Second Year since no other courses are prerequisites. The course is largely descriptive and covers the full range of astronomical topics.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

AST 100 **A Survey of Modern Astronomy**

A general survey of modern astronomy giving a descriptive treatment of the nature of solar and stellar systems and the present conception of the structure of the universe. This course is intended for students with no science background or those who do not intend to specialize in science.

Exclusion: AST 120/220/200F

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Biology

Given by the Staff of the Departments of Botany and Zoology

Note: Suggested programmes of study in Biology and in Mathematics and Biology are given under the heading 'B SC Programmes.'

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

BIO 100 **Biological Principles and Processes**

An introductory biology course stressing the role of physical and chemical principles in life processes. Organization and metabolism of cells and organisms including nutrients, energy cycles and physiological regulation will be stressed. Genetic mechanisms, developmental biology and evolution of plants and animals will also be considered.

Exclusion: BIO 120

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

BIO 120 **Evolutionary and Environmental Biology**

A biology course relating the study of plants and animals to evolution. Lectures and laboratories in the beginning will include a review of the basic biochemistry of organisms, and will proceed from there to consider briefly the origin of life and cellular processes, and will stress genetic mechanisms and speciation, the array of plants and animals and some of their special adaptations, the biology of populations, ecological systems, and man in his environment. Intended primarily for students with Grade XIII Biology.

Exclusion: BIO 100

Prerequisite: None. (XIII BIO recommended.)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Botany

Chairman of Department/Professor J. Dainty

Undergraduate Secretary/Professor E.R. Luck-Allen

Enquiries/Botany Building, Room 225 (928–3537 for appointment)

Botany is the branch of biological sciences that concentrates on the study of plants. It is one of the most fundamental of subjects, since all animals, including man, depend for their very existence on the process of photosynthesis, which is unique in green plants.

Man has been a botanist since he first inhabited the earth, gathering the plants where he found them, but civilization could start only with the beginning of agriculture. Knowledge of plants is of the utmost importance in efforts to solve the urgent problems we are confronted with in our modern world, such as food shortage and pollution. Man's food and shelter, the oxygen he breathes, the condition of his environment and the fate of his civilization depend on maintaining a proper balance in the plant cover of this earth. Botany plays its role in studying the reaction of plant life to toxic and radioactive substances in the deteriorating environment. New high-yielding varieties of crops like corn and rice, recently developed, are greatly improving the food situation. Many therapeutic drugs, including antibiotics and tranquilizers, are gifts from the plants. Dramatic changes in our way of life have been brought about by the practical application of fundamental botanical research.

Originally Botany was a descriptive science, but it gradually developed to become the experimental science it is today. As such it has helped to open new horizons of progress in such borderline fields as biochemistry and biophysics. In many research problems plants are more suitable as objects of study than animals, and as a result botanists are in the front line of fundamental biological research. This starts at the molecular level, and deals with the structure, function, organization and development of cells and whole plants, as well as biological communities. The study of Botany encompasses plant life in all its forms, from viruses to higher plants, including such aspects as heredity, diseases and relation to the environment. Careers for botanists are mainly in teaching and research. These aspects may be combined in universities, or pursued separately, the one in schools, the other in government institutions or museums, in connection with various botanical fields such as Agriculture, Horticulture, Forestry, Conservation, Plant Breeding, and others. Professional careers in Botany nowadays require a certain amount of specialization at the undergraduate level, while only the possession of an advanced degree will open prospects for promotion. Those who want to teach Biology in the secondary schools should select a programme in Biology, balancing Botany and Zoology according to the requirements of The College of Education for entrance to its various teaching-certificate programmes. More general programmes can be devised,

including Botany, either to obtain an overall knowledge of several fields, or to provide a background for environmental studies. A few examples of how a flexible programme can be applied, follow. Combinations with Chemistry can lead to specialization in Biochemistry, Microbiology, Food Chemistry or Chemotaxonomy. Combinations with Physics open the study of Biophysical problems, such as ion or water transport in plants, photosynthesis, many others. With Geology it may be applied to the use of plants as indicators of elements in the earth crust or of fossil plants to identify geological strata.

The main areas of specialization in Botany are: plant relationships (Systematic Botany, Biosystematics, Cytotaxonomy) and distribution (Phytogeography), structure and evolution (Anatomy and Morphology), function and development (Physiology), ultrastructure in relation to function (Cell Biology) or to hereditary problems (Cytology, Cytogenetics), plant diseases (Pathology, Virology), the interrelationships of plants and the environment (Ecology), the study of fungi (Mycology) or of algae (Phycology).

A student who wants to specialize in Botany should lay a foundation of knowledge of the Biological and Physical Sciences. A training in Mathematics is essential for the solution of a number of biological problems. Suggested programmes of study in Botany, in Biology and in Mathematics and Biology are given under the heading 'Bsc Programmes.'

Because of the great variety of possible combinations in Biology, pre-requisites are kept to a minimum, but students are strongly advised to follow the recommendations made by the Department. The Department should also be consulted if the student wishes to follow a programme toward any particular area of specialization.

Admission to graduate studies in a botanical field will be based on the successful completion of a specialist programme in Botany. The backgrounds of other applicants for graduate work will be evaluated on an individual basis.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

BIO 100 **Biological Principles and Processes**

See description under 'Biology.'

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

BIO 120 **Evolutionary and Environmental Biology**

See description under 'Biology.'

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

BOT 220 **Plant Physiology and Biochemistry**

A basic course on the biochemistry, metabolism, growth, development and general physiology of plants.

Exclusion: BOT 320/321 (1970-71 calendar)

Prerequisite: None (BIO 100/120 or BOT 100 recommended.)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Chemistry

*Chairman of Department/*Professor A.G. Brook

*Associate Chairman/*Professor A.G. Harrison

*Enquiries/*Lash Miller Building, Room 151 (928-3604 for appointment)

Chemistry is both a challenging intellectual pursuit and a dominant force in shaping our modern civilization. Modern chemistry places a strong emphasis on an understanding of the structures and properties of individual atoms and molecules and on using this understanding to interpret and predict the behaviour of matter. Many of the concepts of Physics and the methods of Mathematics are basic to Chemistry. Chemistry is, in turn, of fundamental importance to many other subjects ranging from the biological and medical sciences to Geology, Metallurgy, and Astrophysics. These and other aspects of the subject are reflected in the courses offered and the programmes recommended by the Department of Chemistry.

The basic course offered in First Year is CHM 120 and should be chosen by all those who wish to continue the study of Chemistry in a later year or who require Chemistry as preparation for another science. Grade XIII Mathematics A (or MAT I) and Chemistry are the normal prerequisites for this course although students who lack Grade XIII Chemistry may obtain departmental permission to take the course provided they take a special 2 hour per week tutorial during the fall term. (Students intending to register in CHM 120 without the Grade XIII preparation are advised to consult the Department during the summer so that a suitable reading programme may be arranged prior to commencement of lectures.) In addition to these special tutorials, regular weekly tutorials will be held for all students as well as one afternoon (3½ hours) of laboratory every second week.

A second course, CHM 100, is specially designed for non-scientists to provide an insight into the impact of chemistry on our contemporary way of life. This course is not equivalent to Grade XIII Chemistry nor does it serve as a prerequisite for any other Chemistry course. It has no prerequisites and may be taken in any year, with the result that it can form part of a sequence with similar courses in the other sciences to give a non-scientist an overall view of the ideas and methods of science.

Chemistry courses normally available to Second Year students are CHM 210F, 220, 221, 230S and 240. CHM 210F is a lecture course dealing with the principles of Analytical Chemistry and applications to relevant scientific problems. CHM 220 considers some of the more physical aspects of Chemistry and is more mathematical than the other courses. The lecture portion of CHM 221 is identical to CHM 220; the course differs in providing a laboratory during the second term for those desiring practical experience or for those who wish to spread their laboratory work over two years. (The combination CHM 221-CHM 321 is identical with CHM 220-CHM 320). CHM 230S and CHM 240 are introductions to inorganic and organic chemistry, respectively; both treat their subject matter in terms

of structure and bonding. These courses replace CHM 235 offered in previous years and cannot be combined with CHM 235 in a degree programme. Students wishing a firm background in Chemistry but without specialization are advised to take CHM 230S and CHM 240 in Second Year and postpone CHM 220/221 until Third Year. Other advanced courses (normally 300-series) may be taken if prerequisite conditions have been met.

Details of specialist programmes recommended by the Department are presented elsewhere in this Calendar. These programmes: Chemistry, Chemistry (with Physics), Chemical Physics, Chemistry and Mathematics, and Chemistry and Biochemistry, have been designed to provide the student with an integrated series of courses, which, over the four years, will provide a sound background in the areas indicated by the programme titles. Students are free to deviate from these programmes and, indeed, to devise new interdisciplinary programmes; however, prior consultation with the departments concerned is urged. All the programmes listed are suitable training for those wishing to enter science-based industry, to continue into graduate work and, with certain limitations, to teach Chemistry in secondary schools (Type A Certificate). A graduate degree is essential for teaching at the college or university level and is virtually essential for a research career. A student wishing more information about specific courses or career opportunities in Chemistry may obtain an appointment with one of the many professors involved in student counselling by calling 928-6033. The Chemistry Programme provides a basic core of Chemistry, with the necessary ancillary Mathematics and Physics, in the first three years, leaving the Fourth Year free for the student to choose courses reflecting his specific area of interest. This programme is suitable for entry into graduate work in any area of Chemistry.

The Chemistry (with Physics) Programme is similar to the Chemistry Programme but recommends the study of more Physics and is therefore particularly suitable for those students interested in the more physical areas of Chemistry. This programme is suitable for those who wish to continue into graduate work, particularly in Physical Chemistry, although preparation for graduate work in other areas is readily achieved through the choice of options in the final two years.

The Chemical Physics Programme is an interdisciplinary programme designed for those whose interests lie in the large area of science where Chemistry and Physics overlap. This programme is particularly suitable for graduate work in certain areas of Physical Chemistry and in Molecular Physics. Entry into research in areas of Chemistry other than Physical Chemistry is difficult but can be achieved if care is taken in the choice of options in the final two years. Similarly, a careful choice of options will be necessary if a Type A teaching Certificate is desired.

The Chemistry and Biochemistry Programme is an interdisciplinary one designed for students whose interests incline towards Biochemistry or the biological areas of Chemistry. It is an especially appropriate preparation for graduate studies in these areas.

The interdisciplinary programme in Mathematics and Chemistry is highly challenging and should be attempted only by outstanding students. It is designed particularly for those intending to do graduate work in Theoretical Chemistry or Applied Mathematics and a well-rounded training in either may be obtained by a careful choice of options, particularly in the higher years.

Examination of the specialist programmes will show that they differ only slightly in the first two years. For example a choice of CHM 120, PHY 120 and MAT 139 in First Year will permit entry into the Second Year of all but the Chemistry and Mathematics Programme. The second year programmes also differ only slightly and transfer between programmes at the beginning of Third Year will, in general, be possible. It should also be pointed out that, regardless of the programme chosen, a student wishing a balanced training in Chemistry should take each of CHM 320, 330 and 340. In addition, as the computer is playing an increasingly important role in all areas of Chemistry, a half-course in Computer Programming is recommended as part of any chemist's training.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

CHM 100 **Contemporary Chemistry**

A course for those interested in learning something about modern chemistry and its relationship, dependency and impact on other fields of knowledge. Emphasis is placed on philosophical concepts of science and the role of chemistry in modern technological society.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

CHM 120 **Basic Concepts of Modern Chemistry**

Atomic and molecular structure and theories of chemical bonding. Introduction to chemical energetics (thermodynamics, equilibrium, kinetics). The laboratory (3½ hours alternate weeks) introduces synthetic and analytic techniques and applications of physical methods to problems in chemistry.

Prerequisites: XIII CHM, MAT A/MAT I (Functions and Relations). (Students with XII CHM and XIII MAT A/MAT I may enrol if they receive departmental approval and take an additional two-hour weekly tutorial during first term.)

Co-requisites: MAT 130/134/135/139/150

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

CHM 240 **Introductory Organic Chemistry**

The chemistry structure and properties of carbon compounds is presented according to functional groups of increasing complexity and within the framework of modern structural theory. Some classes of organic compounds of special biological interest (carbohydrates, amino acids, steroids, terpenes) are discussed separately.

In the laboratory students learn the basic laboratory techniques, carry

out a number of organic syntheses and analyze organic compounds by chemical and spectroscopic methods.

Exclusion: CHM 235

Prerequisite: CHM 120

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Classics

*Chairman of Combined Department/*Professor J.J. Sheridan (St. Michael's College)

*Secretary/*Professor H.J. Mason (University College)

Chairmen of College Departments:

*University College/*Professor G.V. Sumner

*Victoria College/*Professor G.L. Keyes

*Trinity College/*Professor D.J. Conacher

*St. Michael's College/*Professor J.J. Sheridan

*Enquiries/*University College, Room A102 (928-3178 for appointment)

The field of classics is concerned with the linguistics, literature, philosophy, religion, politics, and history of Greece and Rome. For the linguist, Greek provides an unbroken tradition from the earliest to modern times; while the relationship of Latin with the Romance Languages affords a valuable check on the comparative method of linguistics.

Students and lovers of literature are introduced to early and often unsurpassed works in every *genre* which have contributed form, content, and critical standards to every European literature. The philosopher encounters the seminal ideas of European philosophy clearly and simply expressed. The political scientist observes a people, passionately interested in both the theory and practice of politics, who explored the possibilities of elitist governing groups, enlightened and unenlightened despotism, and democracy, singly and in a variety of combinations, in national, federal and imperial contexts, and on every scale from city state to 'world empire.'

Students of religion discover a rich variety of religious experience, interesting in itself and for its formative influence upon Christianity and Islam.

The historian, with an entire civilization before him from beginning to end, can compare it with his own, and can trace the evolution of a single great social experiment from its first creative phase, through its mature achievement, to its final period of consolidation – and obsolescence. Classical language, literature, philosophy, political experience, religion, law, art, architecture, and Euclidean mathematics are still factors in our lives, and our understanding of the present will be enhanced by some understanding of these formative influences from the past.

The Department of Classics is now also offering courses in Modern Greek Language and Literature. Many of the ancient literary motifs survive in the themes of contemporary authors and of the popular poetry of modern Greece. Since Independence, Greece has produced poets and novelists of prime importance, whose works have influenced the literature of other Western countries.

Students who wish to specialize in classical studies may participate in Programmes in Classics, Greek, Latin, and Greek and Roman History, beginning in the Second Year. These programmes are described elsewhere in this Calendar, under the heading "B.A. Programmes." For those who wish to combine their studies of Latin or Greek with other disciplines, the Department of Classics is cooperating with other departments in joint programmes. Programmes now exist which combine Latin or Greek with other languages, and Greek with philosophy. Other combinations can be designed to suit the interests of individual students.

Graduates of these Programmes generally teach in schools and universities. They are eligible for Type A certificate programmes at The College of Education, and for admission to graduate and professional studies here and abroad.

The Department of Classics welcomes students of all academic backgrounds who wish to take courses in the field but do not wish to specialize in Classical Studies. Students need not know Greek or Latin to study Greek and Roman History or Greek and Latin Literature in Translation. Of course, advanced work in Greek and Latin does require study of the basic language courses in sequence.

The courses offered by the Department of Classics are listed in this Calendar under the headings GLL (Greek and Latin Literature in Translation), GRH (Greek and Roman History), GRK (Greek), and LAT (Latin). The courses in Modern Greek are numbered GRK 150, 155, 250, 350. The Department also cooperates with the Department of History in offering the courses coded HIS 485 (The Problem of Government in Classical Greece) and HIS 486 (From Republic to Principate), and with the Department of Near Eastern Studies in offering the course NES 251 (Introductory Hellenistic Greek).

GREEK AND LATIN LITERATURE IN TRANSLATION

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

GLL 190 **Greek and Roman Religion and Mythology**

With selected readings in the ancient sources.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

GLL 200 **Greek Tragedy and Comedy**

A survey of Greek drama from the origins of tragedy in the sixth century to New Comedy, with close study of selected plays of Aeschylus, Sophocles, Euripides, Aristophanes, and Menander, and attention to Aristotle's *Poetics*.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

GREEK AND ROMAN HISTORY

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

GRH 100 **Greek and Roman Civilization**

Its political, economic and cultural evolution, beginning in an age of independent city-states, reaching rich maturity in the Hellenistic age of Great

Powers, and culminating in the multiracial and multicultural Roman empire. Its place in world history.

Exclusion: GRH 200/201/300 if taken in the same year of study.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

GRH 201 History of Rome from its Foundation to 31 B.C.

Political, economic and cultural development accompanying Rome's evolution from city-state to world empire.

Exclusion: GRH 100 if taken in the same year of study.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

GRH 216 Alexander the Great and the Hellenistic Age

The psychology of power. The course will examine the relations of Alexander with his generals, as his conquests made him a threat to even his closest associates.

Recommended preparation: GRH 100/200/201

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

GRH 300 The Roman Empire

Constitutional, economic, military and religious problems of a world state and a declining civilization.

Exclusion: GRH 100 if taken in the same year of study.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

GREEK

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

GRK 150 Introductory Modern Greek

This course is designed to introduce beginners to the Modern Greek language in its oral and written form. At least one hour a week of laboratory work is mandatory.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

LATIN

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

LAT 100 Introductory Latin

This course is designed to acquaint the student with the essentials of the Latin language and to introduce him to Roman literature. It may not be taken by students with Grade XII Latin or equivalent except by permission of the Department.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

LAT 120F The Poetry of Catullus

Selections from the work of Catullus, including both the love poetry and the poetry of social comment, with particular emphasis on the literary value of Catullus' work. The course includes study of the Latin language.

Prerequisite: XIII LAT/LAT 100/130

Co-requisite: Any other half or full course in the same subject.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

LAT 121S The Poetry of Horace

Selections from the *Odes* of Horace, with particular emphasis on the literary quality of Horace's lyric poetry. The course includes study of the Latin language.

Prerequisite: XIII LAT/LAT 100/130

Co-requisite: Any other half or full course in the same subject.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

LAT 219F Roman Comedy

A study of Roman Comedy, based on the reading of a play of Plautus and a play of Terence.

Prerequisite: LAT 100/130 or two of LAT 120F/121S/122F/123S

Co-requisite: Another full or half course in LAT

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

LAT 220S Lucretius

A study of selected texts from Lucretius' philosophical poem, *De Rerum Natura*.

Prerequisite: LAT 100/130 or two of LAT 121S/122F/123S

Co-requisite: Another full or half course in LAT

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

LAT 222 Christian and Mediaeval Latin

Latin in a new milieu. Selections of prose and poetry.

Prerequisite: LAT 100/130 or two of LAT 120F/121S/122F/123S

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Commerce

Offered by the Department of Political Economy

Chairman of Department/Professor J.S. Dupré

Supervisor of Studies/Professor J.E. Smyth

Academic Adviser/Professor G.T. Gilbert

Enquiries/Sidney Smith Hall, Room 3018 (928-3334 for appointment)

The Department of Political Economy offers an undergraduate programme in Commerce and Finance leading to the Bachelor of Commerce degree.

A number of Commerce courses, as set out below, are now offered in the summer and in the evening of the fall and spring terms, though at the present time it is not possible to take sufficient Commerce courses to obtain a BCOM degree through the Division of University Extension. The Commerce courses listed may, however, be taken for credit towards a BA degree or they may, at the discretion of the Supervisor of Studies in Commerce & Finance, be considered as part of a programme for the BCOM degree where the balance would be taken in the regular day classes.

Complete details of the Programme in Commerce & Finance are set out in the Calendar of the Faculty of Arts and Science.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

COM 100 Financial Accounting

Basic theory and concepts which underlie the preparation of financial statements; development of double entry theory and practice; the accounting cycle from the recording of transactions in double entry form to the year-end entries and the preparation of financial statements; problems of measuring income.

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

COM 221F Management Accounting

This course introduces management control through lectures, case discussions and a computerized management game. It examines the following topics: the relationship between cost, volume and profit; variable costing and decision-making; the absorption-variable costing controversy; overhead allocation; job order and process cost systems; and, the use of predetermined costs (estimated and standard costs).

Prerequisite: COM 100

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

COM 222S Information Systems & Control

The course includes information system theory, control theory and practice, relevant costs, responsibility accounting, and a survey of selected management science techniques. Through case discussions, interrelationships between information and control systems, managerial style and human behaviour are established.

Prerequisite: COM 221F

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

COM 300 The Legal Environment of Business

The course has two main purposes: to develop an approach to reaching decisions objectively, and to examine how the law, as an institution, accommodates business convenience and social policy. In addition, the course examines the nature of legal devices that are commonly encountered in the operation of a business. To a large degree the lecture periods take the form of class discussion of cases and of topical matters related to business law.

Prerequisite: ECO 100/102

Co-requisite: COM 221F, 222S (formerly COM 220)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COM 320 Financial Accounting Theory and Policy

An extension of financial accounting topics previously covered, this course emphasizes areas of current concern such as: inventory valuation; accounting for fixed assets and intangibles; corporate reorganizations; and inter-corporate investments. The case method of instruction is used extensively.

Prerequisite: COM 221F and 222S

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

COM 331 Business Finance

The course is designed to develop an understanding of corporate financial behaviour and practice. It proceeds by a combination of lectures and case studies. Topics include capital budgeting, leasing, the financial problems of small business, public financing and underwriting, venture capital, mergers and acquisitions, and the use of surplus funds. In addition, the course reserves some time for discussion of topical matters especially affecting business finance in Canada.

Exclusion: COM 421

Prerequisites: COM 100 and ECO 100

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COM 332 Organizational Behaviour

This course will examine how the interrelationship of tasks, authority positions and the needs of the individual governs effectiveness in organizations. Students will consider specifically problems of interpersonal relations, attitudes, conflict and the management of change. The course will also examine briefly the relationship of organizations to their environments. Assigned reading, case studies and role playing exercises will be used. Limited enrolment.

Exclusion: COM 401

Prerequisite: COM 100 and ECO 100/102

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN ONLY TO FOURTH-YEAR STUDENTS

COM 420 Accounting Literature & Research

This course will take the form of a seminar for the critical discussion of research bulletins and monographs of the leading accounting bodies in Canada, the United States and Britain, of articles in current issues of accounting journals, and of classic articles in books of readings. Its purpose is to provide a review of contemporary and controversial issues in accounting theory. Enrolment is limited to twenty students.

Prerequisite: COM 320

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COM 423 Canadian Business Taxation

The course is basically designed to provide Commerce students with an introduction to both the technical provisions and broad policy issues involved in taxation of business enterprises in Canada. The emphasis in the course is therefore of a dual nature, including both a development of an understanding of technical income tax provisions and a review of major policy issues.

Prerequisite: COM 221F, 222S (formerly COM 220). In the event enrolment has to be limited, preference will be given to students who have also completed ECO 202 or who (if specially registered) hold a university degree.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Computer Science

Chairman of Department/Professor T.E. Hull

Undergraduate Secretary/Professor S.A. Cook

Student Adviser/Mrs. M. Chepley

Enquiries/McLennan Physical Laboratories, Room 1317 (928-6360 for appointment)

Computer Science is concerned with both the theory and practice of computers and computer applications. Beginning with the basic mathematical notion of an effective procedure, or algorithm, an extensive theory of computation has been developing quite rapidly during recent years. Closely related theoretical areas include combinatorial mathematics and graph theory, as well as some aspects of numerical analysis and artificial intelligence. At the same time there has been an almost explosive growth in the development of programming languages and the techniques of systems programming. Members of the Department of Computer Science are interested in each of these subjects and their interrelationships, as well as in their applications to other disciplines and their implications for society. The Programme in Computer Science is designed to provide students with the fundamentals that will be important for future careers in computing, either in application areas or as specialists in computer systems, as well as for future graduate work in Computer Science. Students wishing to specialize in Computer Science should begin with CSC 148F and CSC 158S. These courses lead eventually to a more advanced treatment of special subjects, such as programming languages, computer systems, theory of computation and numerical analysis. The specialist also requires a substantial amount of mathematics, and will probably take an interest in some other subject as well. His other subject may be in the physical sciences, or it may be in the social or life sciences, or the humanities. For example, there are extremely interesting possibilities for someone who combines Mathematics and Computer Science with Economics, or Biology, or Linguistics. The student who wishes to emphasize the hardware aspects of Computer Science should consider enrolling in Engineering Science, where he can take the Computer Science option in third and fourth years. Computers are being used in a wide variety of areas, and students often study computing primarily in order to use computer techniques in their own specialties. Such students can begin with either CSC 148F or CSC 108F, depending on which mathematical prerequisites and co-requisites they have. They are advised to take CSC 158S or CSC 118S as well. They can then choose from a number of applications courses in second year. If CSC 148F and CSC 158S are taken, some of the earlier courses in the Specialist Programme (especially CSC 258F and CSC 248S) should also be considered by anyone wanting to have a strong 'minor' in Computer Science.

A number of applications courses are available in the second and later years. CSC 236S is recommended for science students. For someone

wishing to pursue a career in business or industry, the sequence CSC 208S, 228F, 238S, 328F, 358S, in combination with one or more courses in the specialist program, may be of interest. Students anticipating a career in secondary school teaching are advised to select from the following courses: CSC 228F, 236S, 238S, 248Y, 258F, 358S, 378S.

Tutorials are associated with almost all courses in Computer Science, and it is hoped that through individual instruction each student will be able to develop his own interests to best advantage. Students sometimes enter the University after already having an introduction to computing, and special provision is made for those who want to proceed at a more rapid pace. A number of changes have been made to the specialist program this year. Those who have completed their third year should consult the department for further information.

The University of Toronto Computer Centre provides general computational services for the research and teaching departments of the University. The main computers in the Centre are an IBM 370/165, a 360/65 and a 7094-II. Other facilities are available for special purposes such as systems programming and computer graphics. All major programming languages are available.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

CSC 108F **Computer Programming**

Introduction to algorithms, computer organization and assembly language. Emphasis will be placed on learning to program in a high level language. Applications. (This course is especially for students who have no Grade XIII Mathematics, or who are not taking the co-requisite for CSC 148F.)

Exclusion: CSC148F/Y

Prerequisite: XII MAT

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

CSC 108Y **Computer Programming**

Introduction to algorithms, computer organization and assembly language. Emphasis will be placed on learning to program in a high level language. Applications. (This course is especially for students who have no Grade XIII Mathematics, or who are not taking the co-requisite for CSC 148F.)

Exclusion: CSC148F/Y

Prerequisite: XII MAT

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

CSC 118S **Programming Applications**

A continuation of CSC 108F. Practical approaches to solving problems using a digital computer: numerical computations, statistical calculations, simulations, data processing and non-numerical calculations.

Exclusion: CSC 158S

Prerequisite: CSC 108F/Y/148F/Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

CSC 148F **Introduction to Computing**

Introduction to algorithms, computer organization, and assembly language.

Programming in a high level language such as PL/I. Applications. (This course is more intensive and contains more material than CSC 108F/Y. Special provision is made for students who already have some programming experience.)

Exclusion: CSC 108F/Y

Prerequisite: XIII MAT A/MAT 1 and 2

Co-requisite: MAT 134/135/139/150

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

CSC 148Y **Introduction to Computing**

Introduction to algorithms, computer organization, and assembly language. Programming in a high level language such as PL/I. Applications. (This course is more intensive and contains more material than CSC 108F/Y. Special provision is made for students who already have some programming experience.)

Exclusion: CSC 108F/Y

Prerequisite: XIII MAT A/MAT 1 and 2

Co-requisite: MAT 134/135/139/150

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

CSC 158S **Computer Applications**

A continuation of CSC 148F. Elementary numerical methods and an introduction to error analysis, statistical calculations and tests of significance, simulations and the validity of computer models, data processing, non-numerical calculations, an introduction to the construction of translators. Theoretical models of a computing machine.

Exclusion: CSC 118S

Prerequisite: CSC 148F/Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

CSC 228F **Programming Techniques for Data Processing I**

Cobol, decision tables, if-applicable programming, tabling techniques, table oriented logic and debugging.

Prerequisite: CSC 118S/158S/ (108F/Y/148F/Y and permission of instructor, for 1972-73 only)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

CSC 228Y **Programming Techniques for Data Processing I**

Cobol, decision tables, if-applicable programming, tabling techniques, table oriented logic and debugging.

Prerequisite: CSC 118S/158S/ (108F/Y/148F/Y and permission of instructor, for 1972-73 only)

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

CSC 236S **Numerical Methods**

Solution of non-linear equations, approximation, quadrature, solution of

systems of linear equations, eigenvalues and eigenvectors, differential equations. Exercises requiring the use of a computer will be assigned.

Exclusion: (APM 361F/236S as given before 1972–73)/CSC 351S/441F

Prerequisite: 118S/158S/(108F/Y/148F/Y and permission of instructor, for 1972–73 only) and MAT 134/135/139/150

Note: CSC 118S and MAT 110/130 accepted as prerequisites with MAT 225/224F as co-requisite.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

CSC 238S **Programming Techniques for Data Processing II**

Modular programming, modular design, program extendability, file design, data management systems, information systems, sorting techniques, hardware and software evaluation.

Prerequisite: CSC 228F/Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

CSC 238Y **Programming Techniques for Data Processing II**

Modular programming, modular design, program extendability, file design, data management systems, information systems, sorting techniques, hardware and software evaluation.

Prerequisite: CSC 228F

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

CSC 248S **Programming Languages**

The syntax and semantics of various programming languages, including both algebraic and symbol manipulation languages. Data structures.

Prerequisite: CSC 158S/(148F/Y and permission of instructor, for 1972–73 only)

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

CSC 248Y **Programming Languages**

The syntax and semantics of various programming languages, including both algebraic and symbol manipulation languages. Data structures.

Prerequisite: CSC 158S/(148F/Y and permission of instructor, for 1972–73 only)

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

CSC 258F **Computer Organization**

Computer structure, machine language, instruction execution, addressing techniques, and digital representation of data. Computer system organization, memory storage devices, survey of logic design and micro-programming. Some case studies of actual machines to illustrate various computer architectures.

Prerequisite: CSC 158S/(148F/Y and permission of instructor, for 1972–73 only)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

CSC 368S Language Processors

Formal description and classification of programming languages. Specification of syntax. The parsing problem. Top-down and bottom-up parsing. Precedence methods. Attaching semantics to syntax. Translator writing systems.

Prerequisite: CSC 258F and CSC 248S/Y

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

CSC 378S Information Structures

Data types and operations on them; storage representation and retrieval; access to vectors and matrices; lists, strings and arrays; relations between data; trees; graphs; representations of programs; generalized data structures; data definition facilities in programming languages.

Prerequisite: CSC 258F and 248S/Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

East Asian Studies

Chairman of Department/Professor W.G.G. Saywell

Undergraduate Secretary/Professor D.B. Waterhouse

Enquiries/280 Huron Street, Room 421 (928-3301 or 928-3303 for appointment)

The Department of East Asian Studies offers guidance to students who wish to learn about the great and historic civilisations of China and Japan. The importance of China and of Japan is apparent to the most casual observer of current affairs; but for a proper understanding of Chinese or Japanese values and attitudes it is necessary to study in depth the traditional cultures of these two countries. The courses offered by the Department fall broadly into two categories: those which can profitably be taken by students in other disciplines who wish to broaden their horizons; and those which are directed at intending specialists in Chinese and Japanese studies. Examples of the former are EAS 124, 126, 208, 222, 224, 226, 323, 327, 333, 334, 424S, 425S, JMC 300 and JMC 400. These courses encompass a variety of topics in Chinese and Japanese history, literature, philosophy, fine arts, music and theatre. (For courses in other aspects of Chinese and Japanese studies, such as anthropology, sociology, political economy, geography etc., students are referred to the appropriate Departments. Students are also referred to courses offered by the Department of History, the Department of Indian and Sanskrit Studies and the Department of Islamic Studies.)

For specialist study, it is essential to know Chinese or Japanese (students generally concentrate on one or the other), and a full range of courses is given in both languages from the first year onwards, including both the classical and the modern forms. In the junior-level language courses

emphasis is placed on the spoken language, using sentence-drill, work in language laboratories, etc.; but students are introduced to Chinese or Japanese script from the first year on, and the senior-level courses are mainly courses in reading. Attention may also be drawn to EAS 290 (a course in Mandarin for Cantonese speakers); and to EAS 324 (a course in written Japanese for specialists in Chinese). Students interested in Chinese or Japanese language are recommended to accept the advice of the Department in choosing the appropriate course, and to consult the programmes outlined under *Suggested Programmes of Study*: in general, however, specialists should be reasonably sure that they have some aptitude for language, before undertaking serious study of Chinese or Japanese. Language courses offered by the Department may also be taken by students of linguistics and others who need to know Chinese or Japanese for special purposes.

Specialists in Chinese or Japanese studies most typically continue as Asian specialists during their professional life, whether in university or museum work, in the public service or in business.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

EAS 102 **History of East Asian Civilization**

Selected topics to highlight the crucial developments and problems in the histories of China and Japan. Main emphasis is on gradual developments and changes. Provides a background for those who may subsequently wish to proceed further in the study of Chinese and Japanese civilizations.

Exclusion: HIS 280

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

EAS 124 **Chinese and Japanese Literature in Translation**

Man and nature; life, love and death through Chinese and Japanese eyes. From earliest times to the present. The Chinese term studies poetry, drama and some fiction. Contact with films, tapes, records and musical instruments is included. The Japanese term surveys such literary forms as genre, poetry, fiction, diary and pensee, punctuated with illustrative music and art.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

JES 126 **Visual and Performing Arts of East and South Asia**

An introductory survey of the archaeology, visual arts, music and theatre of the areas of Indian, Chinese and Japanese culture. The intention of the course is to stimulate interest in and further the study of these aspects of Far Eastern civilization.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

CHINESE

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

EAS 100 **Introductory Modern Standard Chinese**

An introductory course in speaking, reading, and writing Chinese (Manda-

rin). This course is only open to students with no prior experience in any Chinese dialect, except with special permission.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

EAS 200 **Intermediate Modern Standard Chinese**

A continuation of EAS 100. Further training in speaking, writing, and reading the language.

Exclusion: EAS 290

Prerequisite: EAS 100

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EAS 290 **Chinese for Cantonese-Speakers**

Practice in Mandarin pronunciation and traditional Chinese learning materials. Enrolment limited to 20.

Exclusion: EAS 100, EAS 200, EAS 300

Prerequisite: Permission of the Department

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

JMC 300 **Modern China in Revolution**

An inter-disciplinary lecture course that traces the history, social context, and political theory of revolutionary trends in China from the Reform Movement of the 1890's to the Great Proletarian Cultural Revolution of the late 1960's.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

EAS 332 **Advanced Modern Standard Chinese**

Grammatical and semantic interpretation of Modern Chinese texts (2 hours); practice in Chinese conversation (1 hour).

Exclusion: EAS 290

Prerequisite: EAS 200

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

JAPANESE

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

EAS 120 **Introductory Modern Japanese**

An introductory course in speaking and writing Japanese. Elementary grammar. Hiragana and basic characters.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EAS 222 **Super History of Japan**

Seminars on topics in the political, social, intellectual and religious history of Japan. The general aim is to understand both the construction and maintenance of a revolution-proof society on the edge of the old Asian world, and its fate in the modern international world.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

EAS 220 Intermediate Modern Japanese

The course aims to equip students with basic skills for reading modern Japanese prose through careful structure analysis, acquisition of basic working vocabulary and oral drill.

Prerequisite: EAS 120

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EAS 224 Japanese Poetry and Theatre in Translation

Reading and discussion of the major works of Japanese poetry accessible in translation. Discussion of Japanese theatre through the media of films, slides, records and translated texts. *Poetry:* Manyoshu, Kokinshu, Shinkokinshu, haiku of Basho, Buson, Issa and the free verse of modern poets. *Drama:* No, Kyogen, Bunraku and Kabuki.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

EAS 320 Advanced Modern Japanese

Reading and grammatical analysis of texts by modern authors.

Prerequisite: EAS 220

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EAS 324 Elementary Modern Written Japanese

An introductory course designed for specialists in Chinese and others who wish to acquire an exclusively reading knowledge of Japanese for research purposes.

Exclusion: EAS 120

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO FOURTH-YEAR STUDENTS

EAS 426 Directed Reading in Modern Japanese

Reading of selected works in modern Japanese under the supervision of a staff member. The student chooses his own text with the supervisor's advice and approval. If there is shortage of supervising staff, students with common areas of interest may form a group to meet in tutorial sessions. Staff permission needed.

Prerequisite: EAS 320 or by permission of the instructor.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Economics

Offered by the Department of Political Economy

*Chairman of Department/*Professor J.S. Dupré

*Supervisor of Studies/*Mr. P. Silcox

*Enquiries/*Sidney Smith Hall, Room 3025 (928–3340 for appointment)

Economics is a social science; that is, it is an exploration of the behaviour

of people in society. Economics studies a particular range of human behaviour that has a strong influence on the structure, well-being, and development of a society.

Much of human activity is directed toward the satisfaction of material wants. In many areas of the world, the greater part of human effort must be directed toward meeting the most elemental demands for food, clothing and shelter. Even in technological-advanced societies, where these basic requirements can be met with comparative ease, the human desire for more goods appears never to be fully satisfied. In consequence, every society – regardless of whether it is capitalist, socialist, or communist in political orientation – is both competitive and co-operative. It is competitive because its members contend with one another to satisfy their individual wants out of a limited supply of productive resources. It is co-operative because the greatest possible supply of goods is available when the activity of producing them is co-ordinated and organized. The lives of human beings are very largely linked together into societies because of this need for co-operative action.

Economics studies the social problems and issues that arise out of this mixture of competition and co-operation in every society. In recent years, for example, it has been particularly concerned with the diagnosis of two separate phenomena: mass unemployment, and inflationary price increases. It explores the roles of government, of private business, and of individual consumers in relation to these and similar problems. Economics is similarly concerned with the question of growth, from an ‘underdeveloped’ to a materially-advanced society. It asks how this growth comes about, and it asks what new problems arise as new growth is attained. Economics deals with any issue arising out of the conflict between human demand for material goods and a limited supply of resources to satisfy those demands. Because Economics studies human behaviour, it has links with other disciplines in the social sciences. A student who so desires can join his courses in Economics to courses in Political Science or in History, for example. It is in fact possible to specialize in Political Economy, a combination of Economics and Political Science.

Economic theory now makes considerable use of Mathematics in some of its inquiries. A student who chooses to specialize in Economics should take one basic course in Mathematics (MAT 134 is recommended). If desired, more such courses may be taken; and several Economics courses draw quite heavily on mathematical analysis. However, these courses are optional, offered only for those students whose interests happen to extend along mathematical lines.

Because of the advances in economic theory, an undergraduate degree cannot take the student sufficiently far to make him a professional economist. For this purpose, graduate work is necessary – and one objective of a programme in Economics is to ready those students who want to go on to graduate work in Economics. Graduate work, however, is highly specialized, and the undergraduate programme is not designed solely to feed students into graduate school. Those students thinking of graduate work should seek advice from the Department concerning their choice of courses.

Undergraduate training in Economics, as in other disciplines, is directed toward the goal of a liberal education. Its purpose is to familiarize students with the discipline of economic thinking, and so to equip them for intelligent appraisal of contemporary economic problems. It is intended to make students aware of the nature of economic science, and of the directions in which economic theory is currently moving. It should give students a solid preparation for training in such fields as Law, or for entry into business, industry or government.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

ECO 100 **Introduction to Economics**

An introductory analysis of contemporary economic institutions and problems: the theory of production and employment; the role of money and the banking system; governmental monetary and fiscal policy; price determination and the role of competition; foreign exchange rates and international trade and finance; and comparative economic systems.

Exclusion: ECO 102

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

ECO 101 **The Economic Development of Modern Europe**

An historical, empirical analysis of the economic development of modern Europe from the sixteenth century to 1939, with case-studies of the British, Dutch, Belgian, French, German and Russian economies. Beginning with an examination of the changing European economy in the pre-industrial era, and of the major barriers to economic development, the course will then focus upon the institutional and technological causes of growth, with particular reference to the Industrial Revolutions, the role of the state, demographic and social changes. The course will conclude with an analysis of the breakdown of the international economy in the inter-war years.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

Note: The following courses are also open to First Year students at the discretion of the instructor if space is available and pre- and co-requisites are satisfied.

ECO 200 **Microeconomic Theory**

A course in the microeconomic theory of pricing. It deals with the determination of prices through the interaction of the basic economic units, the household as consumer and the business firm as producer. Its concern is with the role of the pricing system as the mechanism by which social and individual decisions are made in a capitalist economy.

Exclusion: ECO 241S

Prerequisite: ECO 100 or ECO 102

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

ECO 202 **Macroeconomic Theory and Policy: National Income, Money and Banking**

The subject matter of ECO 202 may be subdivided into the following major

divisions: macroeconomics, monetary economics, economic stabilization, capital markets and international monetary economics. There is detailed discussion of the theory of output, employment and the price level; of techniques for achieving economic stability; of central banking and Canadian financial institutions and markets; and of foreign exchange markets.

Exclusion: ECO 204F/205S/240F

Prerequisite: ECO 100/102/200

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

ECO 204F **Macroeconomic Theory**

This course concentrates on the theory of national income in closed and open economies. The course emphasizes the logical structure of macroeconomic models and develops the theory of determination of output prices and interest rates.

Exclusion: ECO 202/240F

Prerequisite: ECO 100 or ECO 102 and one university course in calculus

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ECO 205S **Macroeconomic Policy**

This course is a continuation of ECO 204F. It turns to the problems of public policy in seeking to influence or control the level of national income and the price level.

Exclusion: ECO 202

Prerequisite: ECO 204F or ECO 240F and one university course in calculus

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ECO 221 **North American Economic History**

This course deals with economic growth and institutional change in Canada and the U.S. The emphasis is upon the application of microeconomic and monetary theory towards explanation of historical change. A staples approach is taken to the study of Canadian economic history. The cod fisheries and the fur trade are examined for the early period in relation to the economic and political events to which they gave rise. The National Policy is then examined in regard to the creation of transcontinental economy after Confederation.

Prerequisite: ECO 100/102

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

Note: The following courses are also open to Second-Year students at the discretion of the instructor if space is available and pre- and co-requisites are satisfied.

ECO 322 **History of Economic Thought**

After a brief summary account of scholastic and mercantilist economics, the lectures will trace in some detail the development of analytical economics from the eighteenth century with special emphasis upon the

work of the Physiocrats; Adam Smith; the British Classical School (particularly T.R. Malthus, David Ricardo, and J.S. Mill); the “marginalists” (particularly W.S. Jevons, C. Menger and L. Waltas) and Marx. Later developments will be examined if time permits. A number of methodological issues are raised, particularly the relationship between economic events and economic theory, and the question of “bias” in economics.

Prerequisite: ECO 200/ECO 241S & ECO 202/ECO 204F & 205S/ECO 240F

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ECO 325F **Advanced Economic Theory – Macro**

To develop analytical skills in constructing and solving macroeconomic models for handling specific problems. For this purpose weekly problems will be assigned and discussed in the tutorial sessions. The problems and solutions will be based on realistic current policy questions.

Exclusion: ECO 332

Prerequisite: ECO 202/ECO 204F & 205S/ECO 240F & MAT 134/135

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ECO 326S **Advanced Economic Theory – Micro**

The course focuses on theories and techniques of decision-making by firms and households. It examines the problem of measuring economic welfare, and the merits and shortcomings of the market mechanism in promoting it. Though a basic element of the course is the precise analysis of quantitative relationships.

Exclusion: ECO 332

Prerequisite: ECO 200/ECO 241S & MAT 134/135

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ECO 328 **International Economics**

The purpose of the course is to acquaint students with the operation of the international economy and the economic interdependence among nations, both in terms of international monetary relationships and interactions and in terms of trade in real commodities. The course deals with these problems on theoretical, institutional, and descriptive levels.

Prerequisite: ECO 200/ECO 241S & ECO 202/ (204F & 205S)/240F

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ECO 339F **Labour Economics**

The course is intended primarily to introduce students to some of the more important issues in the study of labour economics, and to provide a descriptive background for students who will be pursuing further study in this field. The course deals only with selected topics and with the major aspects of these topics. Students therefore are expected to do considerable reading in order to contribute to and benefit from the discussions in both the lectures and the tutorials.

Prerequisite: ECO 100/102

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ECO 340S The Economics of Manpower

This course applies the tools of labour economics to selected problem areas including education and training; mobility; unemployment; wages and prices; the security of employment; and poverty. The purpose of the course is to examine these problem areas in terms of their relation to the operation of labour markets.

Prerequisite: ECO 339F

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ECO 344 Industrial Relations

This course will cover the following areas: labour movement, its history, structure and philosophy; labour regulations with emphasis on Canadian law; collective bargaining – nature of the negotiation process, theories of bargaining, the role of conflict, third party intervention, emergency disputes, grievance procedures; the issues in collective bargaining – terms and conditions of employment; collective bargaining and economic formulation.

Prerequisite: ECO 100/102

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Education

Courses sponsored by Innis College

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

INI 300 Education and Society

An analysis of critical problems and issues in education and the contributions of the major disciplines in their resolution. Current educational thought and practice will be emphasized, with particular reference to the Province of Ontario.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

INI 400 Selected Topics in Education

A seminar course dealing with the relationship of a particular discipline (Economics, Political Science, Psychology, etc.) to the study of education.

Prerequisite: INI 300 (or CIN 300 1970–71)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

English

Chairman of Combined Department/Professor B.S. Hayne (New College)
Secretary/Professor D. Duffy (Trinity College)

Chairmen of College Departments:

University College (Acting)/Professor H.R. MacCallum

Victoria College/Professor F.D. Hoeniger

Trinity College/Professor M.T. Wilson

St. Michael's College/Professor D.J. Dooley

Enquiries/University College, Room E104 (928-3190 for appointment)

The study of English attempts to engage the mind, imagination and sensibility of the student in the literature of the English-speaking world, and in related literatures, both classical and modern. The sequence of English literature from its beginnings (about the seventh century) to the present, constitutes a continuous tradition that reflects the vitality of an entire civilization – its political, social, religious, scientific, and cultural life – and, in addition, presents a permanent record of the ways in which the human mind and imagination have responded to recurrent problems and situations. At the same time, each age gives rise to its own peculiar problems. The literature of the past and the literature of our own day can cast light upon the present and indeed upon the future. Literary studies can provide us with a fuller knowledge of ourselves and our world and with deeper insight into the nature of human experience.

The Combined Departments of English offer a large variety of courses in English Literature and the English Language arranged in four series (100, 200, 300, 400). This arrangement denotes the level of mutual expectation in the classroom and is not tied to the year in which a student is enrolled.

The 100- and 200-series courses are, for the most part, introductory courses which have corresponding and more specialized courses in the 300 and 400 series. For example, English 165 is designed to introduce the student to textual criticism while English 467 is an advanced course in the theory and practice of literary criticism. The 100- and 200-series courses are open to any student in the Faculty and therefore anyone seeking a single course in English or introductory courses to the various aspects of the study of literature should consider carefully the offerings in those series. Students might, for example, take English 108 and then wish to pursue a study of prose fiction or poetry or drama although his major interest lies in another discipline; he might then take one of the 200-series Varieties courses which would provide him with a thorough grounding in the genre which is not tied to a specific period in the history of that genre. Students in related disciplines such as history, other literatures, music, art

or philosophy might consider the 100- and 200-series courses as complementing their other interests. For example, English 204 is designed as a survey of medieval literature mainly in translation; English 102 is a survey of renaissance literature; English 152 is a survey of Canadian literature. The 300-series courses are designed for students with some experience in the study of literature and all normally carry the pre-requisite of at least one course in English. Students in other disciplines, however, are advised to look carefully at the "special studies" courses (370 and above) many of which are designed to interest students in other disciplines and some of which cross departmental lines. For example, in 1972-73, there are courses offered that may be of special interest to students in sociology, political science and religious studies.

The 400-series courses all carry the pre-requisite of B standing in each of three previous courses in English. These are, for the most part, seminar courses and are designed for advanced students in English or students in other disciplines with a considerable interest in English as a second discipline.

Any student, whether he is intending to specialize in English or not, should consider designing his programme so that his courses support one another. Some students find it valuable to take a course in the history of the same period or country as they are studying in the literature course. For example, renaissance literature courses are broadened and diversified by courses in renaissance history and Canadian literature courses are well matched by courses in Canadian history. Similarly, some students supplement their English courses with courses offered by the Philosophy department in aesthetics or in the influential philosophers in the various historical periods. Other combinations, of course, can be made with other literatures, music, art or the social sciences, depending on the individual interests of each student.

For specialization, the Combined Departments ask for at least ten courses and not more than fifteen courses in English in a four-year degree programme. (For exceptions to this, consult with College Departments.) A student must achieve a B average or better in at least ten courses in English. Nine of the minimum of ten courses are specified in various categories so that, as far as possible, the major writers in English are studied, some work is done in the language, and the student is exposed to the major genres of English literature. A student may then choose his other courses in English (a minimum of one and a maximum of six) to suit his own special interests.

It is important that students understand that the basic programme for specialization in English is *not* conceived primarily as a preparation for graduate school or for Type-A certification for teaching in Ontario. Students who are interested in further degrees should consult their instructors about the requirements demanded by the various graduate schools. Students considering a teaching career in Ontario should consult the College of Education.

As well as a specified number of courses in English, the Combined

Departments require that a student intending to specialize take at least five courses in a discipline or disciplines other than English. A knowledge of other disciplines is valuable to a full understanding of the place of English literature among other art forms and social phenomena. Students who think that they might wish to go to graduate school are advised that most schools demand a knowledge of at least one other modern language and/or a classical language; they should seek the advice of their instructors about such requirements.

The programme for students specializing in English and one other subject concentrates on the literature of the British Isles although there is opportunity to take other courses. Students who wish to take such a programme are urged to consult both major departments early in their university career to work out the best possible programme. If such students are contemplating teaching it is very important that they consult the College of Education about the number of courses required for "double certification" and about the admissibility of the second discipline as a "teaching" subject in the province of Ontario.

NOTE: Students are advised to consult College Departments for further information concerning courses and reading lists.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

ENG 108 **Forms of Twentieth-Century Literature**

At least twelve and no more than fifteen works by twentieth-century authors, including works by at least three novelists, three poets and three dramatists. These shall include works by at least six of the following authors: Conrad, Faulkner, Joyce, Lawrence, Wolf; Auden, Eliot, Frost, Stevens, Yeats; Albee, Beckett, O'Neill, Pinter, Shaw.

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

ENG 152 **Canadian Literature in English**

An introductory survey of poetry, prose and drama, including works by such authors as: Moodie, Lampman, Haliburton, Grove, Leacock, Pratt, Birney, Callaghan, MacLennan, Lowry, Laurence, Richler, Reaney, Cohen, Atwood. Recommended reading: *The Book of Canadian Prose* (ed. Smith); *Canadian Anthology* (ed. Klinck & Watters, 2nd ed.).

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

ENG 200 **Old English Language and Literature**

A study of the language, literature, and culture of the Old English period as represented principally in the surviving poetry. The first half of the course will focus on developing fluency in the reading of Old English, concentrating on the grammar, syntax, and style of various pieces of prose and poetry. The second half of the course will be given over to the intensive study of further major texts in Old English literature.

Reference: J.C. Pope, *Seven Old English Poems*. Other texts to be selected.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

ENG 212 Shakespeare

Special study of *Romeo and Juliet*, *A Midsummer Night's Dream*, *Richard II*, *Henry IV*, Parts I and II, *Twelfth Night*, *Measure for Measure*, *Hamlet*, *Antony and Cleopatra*, *The Tempest*. Additions or substitutions may be made by the instructor.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

ENG 218 Major American Authors

An introductory study of a number of American authors – no fewer than four and no more than six – chosen from different periods and so as to suggest something of the range of American Literature. At least three of the authors should be drawn from the following list: Hawthorne, Melville, Whitman, Mark Twain, James, Stevens, Eliot, Faulkner.

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

ENG 302 English Poetry and Prose, 1500–1600

Poetry: Selections from the poetry of Wyatt and Surrey, Sidney, Marlowe, Shakespeare, Spenser (including *The Faerie Queene*, Book I, at least two other Books, and the *Mutabilitie Cantos*) and Donne. Other poets may be added. Prose: More, *Utopia*; Sidney, *Defence of Poesy*. Selections from at least two of the following writers: Elyot, Ascham, Hakluyt, Hooker, Lyly, Sidney (*Arcadia*), Nashe and Deloney. Additional reading from the following: Erasmus, *Praise of Folie*; Castiglione, *The Courtier*; Machiavelli, *The Prince*; Ariosto, *Orlando Furioso*.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

ENG 304 English Poetry and Prose, 1600–1660

Selected poetry of Donne, Jonson and their successors; Milton. Prose by such writers as Bacon, Browne, Burton, Milton, Traherne.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ENG 306 English Poetry, Prose, and Drama, 1660–1800

Selections from the works of at least *ten* of the following: Addison, Boswell, Burke, Burns, Butler, Collins, Congreve, Cowper, Defoe, Dryden, Gay, Gibbon, Goldsmith, Gray, Halifax, Johnson, Pepys, Pope, Prior, Rochester, Sheridan, Smart, Steele, Swift, Thomson, Horace Walpole, Wycherley, Young.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

ENG 308 Romantic Poetry and Prose

Blake, Wordsworth, Coleridge, Byron, Shelley, Keats for special study; brief selections from other poets of the period such as Crabbe, Scott, Landor, Clare. Wordsworth, *Preface to Lyrical Ballads*, *Preface to the Edition of 1815*; Coleridge, *Biographia Literaria*; Shelley, *Defence of*

Poetry; Keats, selected letters; selected writings of Lamb and Hazlitt.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

ENG 312 **Chaucer**

Troilus and Criseyde: selections from the *Canterbury Tales*; further selections from Chaucer's works.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

ENG 322 **Fiction before 1832**

At least twelve works, including one or more by each of Richardson, Fielding, Sterne, Jane Austen and Scott.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

ENG 324 **Fiction, 1832–1900**

At least twelve works, including one or more by each of Dickens, Thackeray, Trollope, Emily Bronte, George Eliot and Hardy.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ENG 328 **Modern Novel**

At least fifteen works chosen from the period c.1900–c.1945, including one or more by each of the following: James, Conrad, Joyce, Lawrence, Faulkner.

Prerequisite: At least one course in English.

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

ENG 332 **English Drama to 1642**

Examples of the miracle play, the morality play, the Tudor interlude, early Tudor and Elizabethan tragedy, comedy and romance; Marlowe: two or more plays; Shakespeare: at least seven of the following: *Love's Labours Lost*, *Richard III*, *Much Ado About Nothing*, *As You Like It*, *Troilus and Cressida*, *Othello*, *Macbeth*, *King Lear*, *Coriolanus*, *The Winter's Tale*; two plays by Jonson, and a selection of works by at least six other Jacobean dramatists.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

ENG 338 **Modern Drama**

A minimum of twenty representative modern plays, including one or more by at least five of the following: Ibsen, Chekhov, Shaw, Synge, Yeats, O'Casey, O'Neill, Eliot, Beckett, Pinter.

Prerequisite: At least one course in English.

Summer Evening ☒ Summer Day ☒ Winter ☐ Not offered ☐

ENG 346 **Victorian Poetry**

The poetry of Tennyson, Browning, Arnold, for special study: selections

from such poets as Fitzgerald, Clough, D.G. Rossetti, C. Rossetti, Morris, Swinburne, Hopkins, Meredith, Hardy, Housman. Selections from the critical writing of Browning, Arnold, Clough, Swinburne, Meredith, Housman, may be added.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ENG 348 **Modern Poetry**

Hopkins, Yeats, Pound, Eliot, Stevens; other poets will be added.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

ENG 350 **American Literature, 1607–1865**

Selections from at least two pre-nineteenth-century authors and Cooper, Emerson, Poe, Thoreau, Hawthorne, Melville, Whitman, Dickinson. Other authors may be added.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ENG 352 **American Literature, 1865–Present**

Selections from at least ten authors, including Twain, James, Stevens, Eliot, Faulkner, and at least three of the following: Stephen Crane, Dreiser, Frost, W.C. Williams, Pound, Fitzgerald, Hemingway.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ENG 354 **Canadian Poetry**

A minimum of fifteen poets from the nineteenth and twentieth centuries, at least nine of which are to be chosen from the following: Crawford, Carman, Lampman, D.C. Scott, Pratt, F.R. Scott, A.J.M. Smith, Birney, Klein, Livesay, Layton, Avison, Purdy, Souster, Reaney. French-Canadian poetry in translation may be included.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

ENG 356 **Canadian Fiction**

Selections from an anthology of short stories. A minimum of twenty works including at least one work by eight of the following authors: Haliburton, John Richardson, Moodie, Sara Jeannette Duncan, Leacock, Grove, Callaghan, MacLennan, Lowry, Laurence, Richler. French-Canadian fiction in translation may be included.

Prerequisite: At least one course in English.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ENG 368 **Victorian Prose**

Selected works from 19th century prose of thought, including at least seven of the following: Carlyle, *Sartor Resartus*, *Past and Present*; Arnold, *Culture and Anarchy*; J.S. Mill, *On Liberty*; Morley, Bagehot, *The English Constitution*; Darwin, Huxley, Ruskin, *Praeterita*, *Nature of Gothic*; Newman, *Apologia*; Butler, Morris, Pater, *Marius the Epicurean*; Wilde.

Prerequisite: At last one course in English.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

ENG 413 **Studies in Renaissance Authors**

Prerequisite: Normally B-standing or better in at least three courses in English.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ENG 415 **Studies in Restoration and Eighteenth Century Literature**

Prerequisite: Normally B-standing or better in at least three courses in English.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ENG 419 **Studies in Twentieth Century Literature**

Prerequisite: Normally B-standing or better in at least three courses in English.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ENG 467 **Seminar in Literary Theory and Practice**

Prerequisite: Normally B-standing or better in at least three courses in English.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ENG 468 **History of the English Language**

A study of the English language from Old English to the present day. Emphasis will be on specific texts, showing how linguistic techniques can be used in the study of literature. Texts: Robert D. Stevick, *English and its History*, A.G. Rigg, *The English Language: A Historical Reader*.

Prerequisite: Normally B-standing or better in at least three courses in English.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ETHICS See 'Philosophy'

FACULTY INTERDISCIPLINARY COURSES See 'Interdisciplinary Courses sponsored by the Faculty'

Fine Art

Chairman of Department/Professor F.E. Winter

Associate Chairman/Professor R.P. Welsh

Undergraduate Secretaries/Professor D.S. Richardson

Miss Marion Walker

Enquiries/Sidney Smith Hall, Room 6037 (928-3290 for appointment)

Studies in Fine Art at the University of Toronto attempt to define the role of the visual arts in the development of man. The methods used are both historical and, through the use of studio courses, experimental and creative.

The courses survey all periods from the Bronze Age to the present in the Mediterranean area, Europe and North America. The student may extend his enquiry to the arts of the Islamic and East Asian civilizations in courses given by other Departments. The scope and variety of available courses will prepare the student for the roles of teacher and museum curator, but further professional training is required for both educational and museum work. Because the modern world has become keenly aware of the visual arts as an area of communication, there is, especially in Canada, a need for specialists in these areas.

Generally, the evidence provided by the Fine Arts enriches the understanding of other disciplines approached by the historical method. The History of Art can be related to courses taught in the Department of History. It is one aspect of cultural history examined in the studies of literature in several language departments. To those interested in Music, Fine Arts is a sister discipline. A combination of Fine Art courses and Philosophy can improve the grasp of those who are interested in aesthetics. Combinations such as these are encouraged, because they provide sound and valuable background for further studies, particularly at the graduate level.

The Department offers three separate areas of specialization: History of Art; Studio; and preparation for the Type A Certificate at the College of Education.

The Department of Fine Art requires no prerequisite at the secondary school level for courses in the History of Art. However, for admission to FAR 110 (Introduction to the Visual Arts) the student is required to present the following evidence of ability in studio work: Drawings in two or more materials, (charcoal, pencil, pen, brush and other graphic materials), and paintings in oil, acrylic, or water-colour. Collages, sculpture and three-dimensional design may be included. Three-dimensional work and any other pieces larger than 24" × 36" should be submitted in the form of slides or photographs. Presentation of plans for visual projects, unexecuted for lack of facilities, is also acceptable. A written statement giving reasons for wishing to enter Fine Art 110 must accompany the portfolio. Portfolios are required no later than May 31st. Applicants will be informed by mail, before June 30th, whether or not they have been granted admission to the course.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

FAR 101 **Ancient Art**

A survey of the art of Greece and Rome. Emphasis is placed upon the importance of architecture and the arts as characteristic expressions of their age; this concept is illustrated by detailed study of the outstanding monuments.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

FAR 102 **Medieval Art and Architecture**

A selective survey of the art and architecture of the Christian world between 300 and 1400 A.D.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

FAR 110 Introduction to the Visual Arts

The language of vision is intensively explored through studio work in many media, as well as through discussion of various principles and concepts of form, space and colour. Limited to 20 students per section.

Prerequisite: Portfolio required by May 31, 1972. (See essay.)

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

FAR 200 European Art from 1400 to 1750

A selective survey of the concepts and problems involved in the transition from Late Medieval to Renaissance in Italy and Northern Europe, and of subsequent artistic and cultural developments with special emphasis on the seventeenth century.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

FAR 201 Western Art from 1750 to 1940

A selective survey of modern art from the beginnings of Neo-Classicism to World War II, in architecture, sculpture and painting.

Prerequisite: FAR 200

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

FAR 220 Later Greek and Roman Architecture

A detailed study of the transformation of the classical Greek architectural tradition into the Hellenistic style of the Aegean and Western Anatolia, and of the fusion of Hellenistic with Italic elements in Late Republican and Imperial Roman work. Special emphasis is given to the originality of Hellenistic and Roman architects.

Prerequisite: FAR 101

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

FAR 230 Visual Arts II

Objective drawing from nature and man-made objects. Conceptual analysis and synthesis of the human form on a two- and three-dimensional level.

Surface exploration of colour and design through the use of both new and traditional media. Limited to 20 students per section.

Prerequisite: FAR 110 with B standing.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

FAR 314 Gothic Revival Architecture

The formal and structural transformations, theoretical evolution, developments in program, changing levels of meaning, and related arts of design in Gothicism from the seventeenth to the twentieth century in English-speaking countries and Western Europe.

Recommended preparation: FAR 200 and/or 201.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

FAR 321 Early Christian and Byzantine Art

An intensive study of a limited number of important, characteristic works from the early Christian and Byzantine periods.

Prerequisite: FAR 102

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

FAR 326F David to Daumier

An intensive study of French painting between 1775 and 1850. Reading knowledge of French is expected. Enrolment will normally be limited to 15 students.

Prerequisite: FAR 201 or consent of the instructor.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

French

Chairman of Combined Department/Professor P.L. Mathews (New College)

Secretary/Professor B.A. Kwant

Chairmen of College Departments:

University College/Professor P.R. Robert

Victoria College/Professor D.W. Smith

Trinity College/Professor B.T. Fitch

St. Michael's College/Professor R.B. Donovan

Academic Advisers:

May 1–August 31/Professor E.A. Walker (928–3854 for appointment)

September 1–April 30/Professor B.A. Kwant (928–8969 for appointment)

French studies in the University of Toronto provide varied and flexible approaches to one of the world's great languages, which holds a position of unique importance in a Canada committed to a confident, practical and creative acceptance of bilingualism. Equipped with a sure knowledge of the language, students will be able to enjoy the riches and intellectual challenge of the literatures of France and French Canada through a wide range of imaginative courses.

The University of Toronto is well aware of the great strides made over the last twenty years in the teaching and learning of French in the secondary schools. Our basic first-year course, FRE 120, assuming satisfactory completion of Grade XIII French, is principally devoted to consolidating the previous experience of students in reading, writing and speaking French. This basic course, conducted entirely in French, as are the great majority of our courses, includes intensive language practice, and much of this involves carefully planned work in one of the language laboratories serving students of French in all the Colleges. The practical skills thus developed will find a natural outlet in the discussion and essay-writing in French which will be a part of subsequent courses. The basic course is also available in Second Year, or even later to students who are not specializing in French. On the

other hand, it may be omitted in whole or in part by specially qualified students who pass a searching test, and these may proceed directly to a more advanced course.

Native speakers of French are not permitted to take for credit FRE 120, nor FRE 271. Such students however will be admitted to any courses for which FRE 120 and FRE 271 are prerequisites.

Supplementary to the basic course, two literature courses including French and French-Canadian literature of the twentieth century will be open to first-year students. In these courses the student will be introduced to the intensive study of vital works of literature and also to the various approaches – historical, biographical, psychological, analytical, structural, sociological, etc. – any of which should be familiar alternative avenues to the appreciation of literature.

Programmes representing specialization in French may be entered in Second Year (although up to two first-year courses may count towards specialization). In the Second Year, the student may choose courses drawn from the following range: (1) the main trends of French and French-Canadian literature; (2) various genres – poetry, theatre, the novel, etc. – in various periods; (3) advanced language – phonology, morphology and syntax, stylistics, etc.; (4) language practice; and (5) courses of independent study in which the student has a hand in defining his field of interest and meets in small tutorial groups for discussion and reading. All of these courses are open to students in higher years. Completion of two second-year courses with high standing may entitle a student to participate in the Third Year Abroad programme administered by the department.

Third- and fourth-year courses, in most cases interchangeable and open to qualified students, offer further studies in literature from the Middle Ages to our own day and other options in advanced language work, semantics, comparative stylistics, etc. Independent study courses are also provided in each of these years.

From such a wealth of courses students of widely differing tastes and needs may select satisfying programmes. Some enthusiastic specialists in French might elect to take the maximum of French courses allowed, but a student will be regarded as a specialist in French upon satisfactory completion of a minimum of ten courses. Details of language, literature and French linguistics requirements may be found in this Calendar under the heading 'Suggested Programmes of Study.' A specialist student may qualify for entrance to a Type A certificate programme in Français at The College of Education. Many specialists in French may wish to pursue parallel studies in other languages – Latin, English, German, Italian, Spanish or Russian – thereby qualifying for entrance to a Type A certificate programme in two languages. Other specialists will wish to enrich their programme in French with closely related studies in Linguistics, Classics, History, Philosophy, Art, Music, etc. Specialists in other disciplines, perhaps particularly in the social sciences, will frequently find French a natural complement to their programmes. Still others who prefer a broad general programme will have the same wide choice of electives in French following the prerequisite basic

course. These combinations are limited only by the student's ingenuity and the time-table.

Students planning to specialize in French are urged to present at least Grade XII Latin, which is necessary for a study of the history of the language and medieval literature, and is a requirement for graduate study in French.

In lieu of Grade XII Latin or equivalent, a beginner's course in Latin may be taken as part of the student's programme. Students contemplating graduate work in French are asked to consult the Secretary of the Graduate Department for further information about requirements.

For detailed information concerning the following courses, consult the Academic Adviser in the French Department.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

Note: The prerequisite for all of these courses is Grade XIII French.

FRE 120 Introduction to University French Studies

The major part of this course, designed to facilitate the acquisition of the linguistic skills necessary for active participation in courses offered by the department, is devoted to language practice. However, as well as class and laboratory work in language, attention may also be given to readings and discussions.

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

FRE 140 Studies in Modern French Literature

Based on a detailed study of specific works selected from the novel, drama and poetry of the 19th and 20th centuries, this course is intended as a practical introduction to the techniques of literary criticism and analysis. Four novels, two plays and four collections of poetry will be selected from the works of Constant, Balzac, Stendhal, Hugo, Musset, Baudelaire, Verlaine, Mallarmé, Alain-Fournier, Apollinaire, Mauriac, Sartre, Camus, Eluard, Char, Anouilh, Ionesco, Butor, etc.

Co-requisite: FRE 120

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

FRE 271 Language Practice

A continuation of FRE 120, this course is designed to further the student's competence in both written and oral French. The programme will include grammar, composition, oral debate, pattern drills, phonetics and language laboratory work. Required of the specialist, FRE 271 can also be of great value to the non-specialist.

Prerequisite: FRE 120

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

FRE 320 The Literature of Classicism

A study of the major writers of the 17th century with emphasis upon the aesthetic and moral characteristics which constitute 'classicism.'

Prerequisite: FRE 120

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

FRE 322 The Literature of the Enlightenment

A study of the revolution in social, political, religious and intellectual values which characterized the literature of the 18th century. Its principal authors – Montesquieu, Voltaire, Diderot, Rousseau – raised issues which neither the Revolution nor the twentieth century has satisfactorily resolved.

Prerequisite: FRE 120

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

FRE 324 The Literature of Romanticism

A study of French Romantic poetry, novels and plays. This course will also study the origins of the movement and some of its manifestations in European literature, music and art.

Prerequisite: FRE 120

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

FRE 326 Realism in French Literature

A study of the concept of 'realism' in French literature from the Middle Ages to the present day with special emphasis on realistic prose fiction of the 19th century. Specific texts are studied in depth in order to show how given writers seek to convey their sense of reality to the reader.

Prerequisite: FRE 120

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

FRE 330 The Literature of French Canada

A study of selected novels, drama and poetry. The texts will be studied from the historical, sociological and aesthetic points of view.

Prerequisite: FRE 120

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

FRE 342 Studies in French Poetry

A study of selected poems by at least 8 major French poets from the 15th to the 20th century. Emphasis will be placed on the characteristic aspects of French poetry: poetic forms, themes, use of image and symbol, 'langage poétique,' poetic structure, rather than on historical development.

Prerequisite: FRE 120

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

FRE 352 Drama from 1600 to 1800

A study of 17th and 18th century drama. This course will examine the 'classic' tragedies and brilliant comedies of the 17th century, the new dramatic forms of the 18th century and theory accompanying this later experimentation. Discussion of representative works from both centuries will provide an introduction to the techniques of dramatic criticism.

Prerequisite: FRE 120

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

FRE 354 Drama from 1800 to 1950

A study of the major plays of the 19th and the first half of the 20th century. This course will provide students with a critical and theoretical approach to the theatre.

Prerequisite: FRE 120

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

FRE 362 Prose Fiction from 1600 to 1800

A study of the evolution, in the 17th and 18th centuries, of the novel as a literary form and as a social phenomenon, using some of the most representative works of the period.

Prerequisite: FRE 120

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

FRE 364 Prose Fiction from 1800 to 1900

A study, through the close analysis of specific texts, of the ways in which such major writers as Balzac, Stendhal, Flaubert, Maupassant and Zola developed the techniques of the novel while exploring such varied themes as ambition, alienation and class struggle.

Prerequisite: FRE 120

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

FRE 366 Prose Fiction from 1900 to 1950

A study of the ways in which 20th-century writers have refined traditional forms of the novel, experimented and innovated, while exploring the diverse spiritual, intellectual, and psychological conflicts of the first half of this century.

Prerequisite: FRE 120

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

FRE 372 The Structure of Modern French

An introduction to French linguistics: the study of the phonological, morphological and syntactical systems of contemporary French. (Not open to students who have taken FRE 275/355)

Prerequisite: FRE 120

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

FRE 373 General History of the French Language

The principal aspects of the language of Northern Gaul from earliest to modern times. A general view of phonetic, morphological, syntactical, and semantic evolution; regional, dialectal, and social variations; attitudes of men of letters (writers, grammarians, scholars); political and social history.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

FRE 374 Introduction to the Stylistics of French

The study of stylistic aspects of contemporary spoken and written French.

Prerequisite: FRE 120

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

Note: Unless otherwise specified, the prerequisite for these courses is any FRE course numbered from 271 upwards.

FRE 316 Mediaeval French Language and Literature

An introduction to representative literary texts of the Middle Ages in the original from the major genres, with a study of the principal features of Old French phonology, morphology and syntax.

FRE 316 is a required course for those entering the Department of French Language and Literature of the School of Graduate Studies.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

FRE 318 French Literature of the Sixteenth Century

The literature of the Renaissance with a detailed study of major prose writers, Rabelais and Montaigne, and poets Marot, Ronsard, Du Bellay, and D'Aubigné. Some attention may also be given to the development of the theatre.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

FRE 344 Modern Poetry (The Post-Romantics)

A study of major 19th-century post-Romantic poets. Special attention will be given to several of the following: Nerval, Gautier, Leconte de Lisle, Baudelaire, Verlaine, Mallarmé, Rimbaud and Valéry. Open to second year students with departmental consent.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

FRE 346 From Symbolism to Surrealism

A study of Surrealism and its precursors (Lautréamont, Apollinaire, Dada, Breton, Eluard, Aragon); of 20th-century Christian lyricism (Péguy, Claudel) and of some post-surrealist poets (Michaux, Char, Ponge). Open to second year students with departmental consent.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

FRE 368 Contemporary French Literature

A study of the novel and theatre since 1950 with special reference to the *nouveau roman* and the *anti-théâtre*. This course will examine innovative approaches to the problems of narration and the interpretation of traditional concepts of time, space, and characterization.

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

FRE 371 Language Practice

A continuation of FRE 271. This course is designed to advance the student's competence in written and spoken French and to prepare him to meet the minimum standards set by the University Language Examinations.

Prerequisite: FRE 271

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

FRE 375 Comparative Stylistics

A comparative study of expression in English and French, practice in translation.

Prerequisite: FRE 271

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Geography

Chairman of Department/Professor D. Kerr

Undergraduate Secretary/Professor J. Britton

Enquiries/Sidney Smith Hall, Room 5047 (928-3375 for appointment)

The courses offered in Geography cover a wide spectrum but the department's most developed teaching (and research) focus is in urban and regional analysis. Theoretical and applied examinations are made of the uses of urban and non-urban land, the location of economic activities and the urban and inter-urban movement of information, goods and people. In a few courses historical and cultural approaches are taken to the examination of these phenomena.

The interaction of man with various aspects of the environment provides the framework for studies in the changing nature of resources, their use, and management. An understanding of a range of current, local, regional, and world problems such as the food-population relationship and the preservation of air-water quality is an important concern of several courses.

Physical geography is concerned with the nature of the processes that take place in the earth's subsurface, surface, and atmosphere: the department offers courses in climatology and geomorphology.

In most geography courses there is a Canadian regional emphasis but this is balanced to some extent by foreign area studies that may be undertaken.

The courses of the department may be divided into five groups:

1. broad first year courses introducing geographical themes and demonstrating integrated approaches to spatial and environmental knowledge
 2. regional courses (in second and third year) on Canada, and several other areas, for which a minimum background is provided by courses in (1)
 3. second year courses open to first year students which present basic knowledge and concepts of a particular field (eg. Introduction to Urban Geography)
 4. other courses are restricted to second and higher year students because of the previous background required and
 5. a course providing the opportunity to undertake supervised research.
- Courses are informally organized into sequences in subject strands that fall across the groups described above and B.A. and B.Sc. degrees are available (see Programmes). These sequences allow the construction of

exciting inter-disciplinary programmes; in urban studies, for example, courses in geography, economics and sociology offer a strong basis for confronting many problems of urban growth, regional disparities, and resources management. It is to be noted that much advanced work in geography demands a minimal technical knowledge of analytical methods and appropriate courses are offered to geography students in this field. Geographers work at all levels of government service but particularly in the Federal Departments of the Environment, Energy and Mines, Regional Economic Expansion, and the Ministry of Urban Affairs. Many graduates of an undergraduate programme in Geography proceed to an M.Sc. degree in Urban and Regional Planning. Graduates in Geography also are employed in marketing firms and consulting agencies concerned with locational problems.

There has been a steady demand for qualified teachers of Geography: a type A certificate for secondary school teachers requires a four year degree including at least 9 courses in the major field.

The Specialist Geography Programme (see Programmes) has been devised to provide students with an integrated pattern of study, the completion of which confers a measure of professional competence: admission to a graduate programme in the Department of Geography at the University of Toronto normally requires grade B-plus standing in the later years of this programme. At the same time students who have done little undergraduate work in Geography may take a two-year, rather than a one-year, M.A. Programme, although each case is treated on its individual merits. A selection of five or six courses is offered by the Department of Geography on the St. George campus in both the summer and winter sessions of the Extension Programme. The majority of courses listed in the Calendar for full-time day students, including the core courses of the Specialist Programme, will be included on a rotational basis.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

GGR 100 **The Earth's Natural Environments**

An examination of the major environmental regions of the Earth. Emphasis will be placed on the concept of the natural environment as an interacting system where changes in one part give rise to modifications throughout the whole. This will be examined in various large and small scale regions of the world and the impact of man's actions on the system will be discussed.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

GGR 220 **Regional Economic Models**

An introduction to location, structure and interaction. The course focuses on: the use of location theory in explaining industrial and agricultural patterns; transport networks and flow systems; regional economic development. Examples are drawn from various parts of the world.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

GGR 224 Introduction to Urban Geography

An introduction to the study of the city under these headings: origins of cities; description and measurement of the city; spatial structure of urban activities; intra-urban circulation; urban systems and functions; urban growth; the city as environment; contemporary approaches to urban problems.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

GGR 240 Canada – A Geographical Interpretation

An examination of the development of economic regions in Canada. Emphasis will be put on questions of resource endowment, human migration and spatial interaction. Problems of present regional disparities will be discussed.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

GGR 242 The Geography of Latin America

This course provides a survey of the settlement geography of Latin America, a discussion of the origin and distribution of the various types of land use in Latin America and a discussion, from the point of view of geography, of some of the major problems of present-day Latin America.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

GGR 270 Introductory Analytical Methods

The course is divided in two parts: descriptive, inferential and spatial statistics; and research design, sampling and computer programming. The objectives of the course are twofold; first, a survey is made of the basic statistical and other quantitative techniques used in geography so that students may effectively read current literature in the field, and second, a necessary technical background is presented for students entering more advanced and analytical courses.

Exclusion: GGR 271

Prerequisite and/or Co-requisite: Two other courses in Geography

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

GGR 280 Cartography

Lectures and workshop introducing principles and methods in the creation and uses of maps as communications media. Topics include: historical perspective, fundamentals of spatial location and scale, map interpretation, cartographic design, statistical procedures, thematic and automated mapping, methods of map reproduction.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

GGR 320F Philosophy of Geography: History of Geographical Thought

Prerequisite: three courses in Geography

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

GGR 321S Philosophy of Geography: Twentieth Century Approaches*Prerequisite:* three courses in GeographySummer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐**GGR 334F Water Resources**

The course will focus primarily on Canadian water resource problems and will deal with such questions as the estimation of national supply and demand, regional and national water transfers, industrial and community supply and disposal problems, the development of Canadian water management strategies, and the implications of the Canada Water Act.

Recommended Preparation: GGR 100, 101 or 233Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐**GGR 340 Europe**

Lectures deal with selected aspects of Northern Europe and the Common Market countries. Students concentrate on a specific area by means of a reading program and the writing of a paper.

Recommended Preparation: Two courses in Geography.Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐**GGR 390F Field Methods I: Physical Geography**

Surveying techniques, map and air photo interpretation, stream discharge measurements, grain size analysis of sediments, field mapping project, "techniques" report. In the Summer Evening Session field work (6 days) will be carried out on the weekends.

Prerequisites: GGR 100, 270.Summer Evening ☒ Summer Day ☒ Winter ☐ Not offered ☐**COURSES OPEN TO FOURTH-YEAR STUDENTS****GGR 491 Research Project**

The research project is one of the core courses in the Specialist Programme in Geography and is intended for fourth year students following this programme. To be eligible to enrol in this course, extension students must satisfy the following requirements:

- 1 Completion of a three-year degree or the third year of a four-year programme.
- 2 Completion of at least seven other courses in Geography; including GGR 270 (Analytical Methods) or its equivalent.

Students enrolling in this course must have their research topic approved by the staff supervisor and will be expected to meet with the supervisor at intervals throughout the year. There will be some sessions including several at the beginning of term, in which all students enrolled in this course will meet as a group. Students intending to enrol in the course and wishing to discuss a research topic prior to the beginning of term should contact Professor A.M. Baker.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Geology

Chairman of Department/Professor E.W. Nuffield
Enquiries/Mining Building, Room 119 (928-3021 for appointment)

Geology is the principal branch of the solid earth sciences concerned with the origin, history and structure of the Earth. It is a scientific discipline providing a dynamic perspective view of the physical, chemical and biological processes that have operated on the earth by observations of rock materials representing a time continuum.

Geology has provided insight into such diverse phenomena as continental drift, economic mineral deposits, the origin and evolution of life and the history of ocean basins. A new development is environmental geology that seeks to relate resources distribution and management to mankind's growing requirements. Geology has many practical applications ranging from oil and mineral exploration to civil engineering, urban development and the evaluation of natural hazards such as earthquakes, landslides and volcanic activity. Geology is intimately linked with investigation of water and energy resources, critical commodities for civilization. A perspective view of the environmental crisis facing life on this planet is obtained by studying the ecology of fossil populations that have faced similar crises in the past.

For many years, geology was an observational science providing an understanding of the character and distribution of rocks. Modern geology combines field and laboratory studies with experimental and theoretical considerations of chemical, physical and biological systems of crustal materials. Thus geology can be divided, for example, into the general fields of geochemistry, geophysics and paleobiology to indicate the principal systems investigated. Alternatively, the organization and method of study breaks down geology into more specific disciplines such as stratigraphy, petrology, structural geology, paleobotany, invertebrate paleontology, rock analysis, mineralogy, paleoecology, economic geology, and geologic data handling.

Geologists are scientists who investigate the structure, composition, distribution and interrelationships of materials forming the crust of the earth. Careers in geology are mainly in the mineral resources industries for exploration and development of metal deposits, energy resources, fossil fuels, water and industrial minerals, in research sponsored by government and industry to seek new knowledge for understanding earth evolution; in government agencies concerned with geological mapping both in Canada and other countries, as well as the oceans and perhaps in the near future the moon; in technical and engineering work such as rock analysis, mine and oil field development, mineral and fossil identification, and geological engineering; in teaching in secondary schools and universities; and in curation and display in museums. In aggregate, most geologists are

employed in research and development capacities by oil and mining companies and federal and provincial surveys. Opportunities for travel for professional geologists are excellent. Professional geologists have to specialize in geology at the undergraduate level. Industry and government often employ students during the summer months who are majoring in geology. Graduate programmes of study can lead to research careers in government and industry and to University appointments.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

GLG 100 **Introduction to Geology**

An introduction to the geological processes at work throughout geological time; continental drift; earthquakes, volcanoes and the structure and composition of the earth's interior; determination of geological time; the past climates and geography of the earth.

Offered in evenings only

Exclusion: GLG 120

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

German

Chairman of Combined Department/Professor C.N. Genno

Chairmen of College Departments:

University College/Professor H.N. Milnes

Victoria College/Professor G.W. Field

Trinity College/Professor D.A. Joyce

St. Michael's College/Professor E. Catholy

*Enquiries/Victoria College, New Academic Building, Room 219
(928-3827 for appointment)*

For the past two hundred years Germany, together with Austria and German-speaking Switzerland, have played increasingly important roles in European life, both as leaders in commerce and industry and as the homelands of important musicians, philosophers, scientists, psychologists, and religious and political thinkers. Their scholars are unrivalled in such fields as Biblical Studies, Mediaeval Studies, Philosophy, Archaeology, Art and Music, History, and Physics and Chemistry. Modern literature in Germany is equally distinguished. It developed late. The first great writers appeared towards the end of the eighteenth century. But from Lessing, Goethe, and Heine to Brecht and Thomas Mann they have remained vigorous and individualistic, and concerned with the widest range of human problems, philosophical and psychological, moral and religious, social and economic.

University courses in German offer a thorough study of the language and of the more important authors from the Middle Ages to modern times. Language study includes phonetics and laboratory work, oral expression, translation, and essay-writing. In the senior years students receive advanced language training and may choose from a variety of courses in literature and in

the development of the language. Scholarships for study at German universities are available for graduate students, and the German government sponsors flights to Germany and summer work for undergraduates.

German may be profitably studied in combination with other languages and literatures, with Linguistics, Philosophy, or History. It is offered as an option in such programmes for specialists in English, Music, and Fine Art, and forms itself a part of programmes that specialize in languages and linguistics. Because it is a well-established fact that a young student learns languages more easily and more thoroughly than an older one. Grade XIII is the normal prerequisite for university courses in German. For departments or faculties that require a student to learn to read scholarly German, however, provision is made for appropriate instruction for beginners and for guidance in reading in specialized fields for those who already have some knowledge of the language.

The successful completion of a four-year programme, including seven approved courses in German, entitles a student to do graduate work in the Department. A knowledge of German is also a valuable asset in many other fields, including foreign service. For information concerning admission to Type A certificate courses at The College of Education the student should consult the College. Students who desire information regarding German studies are advised to confer with one of the college chairmen listed above.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

GER 120 **Modern German Literature**

Selected works of modern German Literature with emphasis on the 20th Century.

Prerequisite: XIII GER or equivalent

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

GER 130 **German Literature of the 19th and 20th Centuries (2 hrs):**

Language Practice (1 hr)

A study of works from 19th and 20th Century German Literature to illustrate major trends; practice in active language learning.

Prerequisite: XIII GER or equivalent

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

GER 210 **Language Practice**

An intensive course in written and spoken German at the intermediate level.

Exclusion: GER 231

Prerequisite: GER 120/130

Co-requisite: GER 220/230

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

GER 220 **German Literature of the Enlightenment and Storm and Stress**

A study to the works of the German *Aufklärung*, and of the young Goethe, the young Schiller, and their contemporaries.

Prerequisite: GER 120/130

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

- GER 230 **Nineteenth Century Prose and Poetry** (2 hrs); **Language Practice** (1 hr)
 This course includes major works of such authors as Heine, Stifter, Storm, Fontane, Keller and Raabe. Language work of 1 Year is continued.
Prerequisite: GER 120 or 130
 Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS ONLY

- GER 310 **Language Practice**
 A full course in intensive language training. Available in either III or IV Year.
 Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

- GER 320 **The Age of Goethe and Schiller**
 A study of *Faust, Part II*, and other important works of the period.
 Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

- GER 322 **Middle High German; Language and Literature**
 Prescribed tests, supplementary texts. (This course is mandatory for German specialists).
 Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

- GER 420 **Prose and Poetry; 1885–1945**
 A consideration of significant writers in modern German Literature such as Nietzsche, George, Hofmannsthal, Thomas Mann, Rilke, Hesse, Kafka, Stadler, Heym, Trakl.
 Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

- GER 421 **Modern German Drama**
 An examination of the development of this genre from its beginnings in the 19th Century until the present day. This includes such authors as Nestroy, Büchner, Gerhart Hauptmann, Wedekind, Kaiser, Sternheim, Brecht, Peter Weiss, Dürrenmatt.
 Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

GREEK AND LATIN LITERATURE IN TRANSLATION See 'Classics'

GREEK AND ROMAN HISTORY See 'Classics'

HEBREW See 'Near Eastern Studies'

History

Chairman of Department/Professor J.B. Conacher

Associate Chairman/Professor M. Israel

Enquiries/Sidney Smith Hall, Room 2070 (928–3362 for appointment)

The Department of History at the University of Toronto at present consists of more than sixty full-time members of staff, whose professional interests

range through such diversified areas of History as: British and Commonwealth, Canadian, East Asian, East European, European, International Relations, Latin American, Russian and United States. In the British and the European areas, the medieval as well as the modern periods are fully covered. Other areas such as Greek and Roman, Near Eastern and Islamic History are taught by other departments. We aim, in the various undergraduate courses of the Department of History, to introduce the student to a range of study which is as wide and as deep as possible.

Our basic approach to instruction in these courses is to combine lectures with small tutorial groups in which the students and the tutor can explore historical problems in depth. In upper-level courses, instruction may take the form of lectures without tutorial groups, or seminars without lectures. A Specialist Programme in History is a four-year programme which includes at least nine full-year courses or equivalent from the offerings of the Department. Courses from other departments (normally not more than three) may be substituted for History courses with the approval of the Specialist Programme Committee. Within this general prescription: (a) the nine courses must be chosen from a minimum of three areas; (b) in each of two areas a minimum of two 300- or 400-series courses must be chosen; (c) of the nine courses, at least two must deal exclusively with periods preceding the year 1815. Students who seek to specialize in *both* History and one other discipline (*double certification*) must consult the Academic Secretary of the History Department about their programme. Through its system of advisers, the Department assists each Specialist in choosing his History courses and also his other courses in order that he may construct a well-integrated programme. The old Specialist regulations (seven courses in History not including HIS 100) continue to apply to those students who entered the University in September 1969 or before.

COURSES RECOMMENDED FOR FIRST-YEAR STUDENTS

HIS 104 **Approaches to History**

An introduction to history through lectures and discussions on the meaning of historical truth and the methods and sources used by historians in their attempts to interpret the past. The period used as a basis for these discussions is the industrial revolution in Britain. Offered only through the Division of University Extension.

Exclusion: HIS 101/102/103/1105.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO STUDENTS FROM ALL YEARS

HPS 200 **History of Scientific Ideas**

The evolution of scientific ideas and methods from early times to the present, studied through the works of such men as Galileo, Newton, Darwin and Einstein, and in relation to the societies in which they lived. The historical roots of the nature of modern science will be examined.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 220 **The Shape of Medieval Society**

A topical survey of economic, political, religious and educational ideas and institutions of the Middle Ages. The narrative of political events is kept to a

minimum, serving only to provide the necessary context for institutions and ideas. From the late Roman period to the fifteenth century.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 230 Politics and Social Change in England, 1530–1800

This course studies the formative period of modern English history. The main aim is to relate changes in the social structure and economy to changes in the political system, in particular to the struggle for power in the seventeenth century and the emergence of a stable political system in the eighteenth.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 232 The British Imperial Experience

Among the themes to be emphasized are: the nature and exercise of power; the reasons for imperial expansion; the colonial system at work; racial antagonism and accommodation; the rise of nationalism in the non-European world.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

HIS 240 Early Modern Europe, 1500–1815

A general survey of the political, social and economic history of Europe from the period of the great discoveries through the Napoleonic era. Topics to be discussed include: the political and religious struggles of the 16th century; overseas expansion; the development of royal absolutism; social change and the crisis of the ancient regime; the impact of the Enlightenment; the French Revolution and its effects.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

HIS 241F Nineteenth Century European Politics, Culture and Society

This course deals with the new ideologies of liberalism, nationalism and imperialism that affected the European polity.

Exclusion: HIS 241 (1971–72)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 242S Europe in the Contemporary Era, 1890–1953

Themes in European history from the *belle époque* to the Cold War. Lectures and readings will explore questions of political, social and intellectual importance during the period. Among these: the World Wars, the Bolshevik Revolution, Stalinism, the emergence of technocracy, the Great Depression, Fascism, Nazism, and postwar reconstruction.

Exclusion: HIS 241 (1971–72)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 250 Russia Since the Ninth Century

The Russian people, state and culture, with emphasis on major institutional social and ideological changes. First term: the origins of Russian History, paganism and Christianity, Mongol influences, the forging of Muscovite autocracy, westernization to 1800; Second term: the imperial regime, the radical intelligentsia, the Revolution and the establishment of the Soviet regime, the Stalin revolution in agriculture, industry and society, foreign relations. Reading in primary and secondary materials.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

HIS 260 Pre-Confederation Canada

Studies in the major problems and themes of the history of Canada before Confederation.

Exclusion: HIS 262

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

HIS 261 Post-Confederation Canada

Studies in the major problems and themes of the history of Canada after Confederation.

Exclusion: HIS 262

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 262 History of Canada

A survey of the political, social and economic history of Canada, topically treated from 1663 to 1967.

Exclusion: HIS 260/261

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

HIS 270 The Development of American Thought and Society from Colonial Times

Main trends in intellectual and social history, with attention given to such topics as Puritanism, the Enlightenment, the reform impulse, education and science, the American mind during and after the Civil War, immigration, from the Age of Innocence to the Age of Anxiety.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

HIS 271 American History Since 1763

Major themes since the American Revolution, including independence and political reorganization, political parties, territorial expansion, the sectional crisis, industrialization, progressivism, the United States as a world power.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

HIS 290 Latin America: Conquest to Revolution

Introduction to the economic, political and intellectual history of Latin America from roughly 1400–1960. Emphasis placed on: the contact of European and non-Western cultures, the development of institutions such as latifundia, the crisis of independent nationhood, the struggle for economic development, and the contemporary revolutionary crisis.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

COURSES OPEN TO THIRD- AND FOURTH-YEAR STUDENTS

HIS 302 France Since Napoleon

A study of developments since the early 19th century in French politics, culture, and society. Also open to second-year students.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 333 English Society in the 17th and 18th Centuries

The course concentrates on the changes in English society that underlay and accompanied the agricultural revolution, the rise of overseas trade and

the industrial revolution. Particular attention will be given to demographic problems, landownership and the rural community, urban classes and the growth of towns, labour and the poor.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

HIS 338 From Empire to Welfare State

This course covers British history from the beginning of the 20th century, with special emphasis on the contraction of British power overseas and the development of government power to provide effective social services.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

HIS 341 Italy Since 1789

The unification of the Italian peninsula, the liberal regime (1870 to 1922); and the Fascist era. Liberalism, nationalism, imperialism, and church-state relations are the major themes. The socio-economic problems that caused emigration and the impact of emigration are also studied.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

HIS 348 Topics in the History of Women from the Fifteenth to the Twentieth Century

This course will examine the following subjects in the context of both European and North American society: family structure and demographic patterns, female participation in the labour force and in religious and political movements, changes in sex roles, in attitudes towards women and in female consciousness.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 361 Strategies of Canadian Economic Development, 1850-1970

Approaches to economic development in Canadian history; their implications and consequences. The establishment of networks of transportation and communication, the growth of industry, the role of government in economic affairs, class and group conflicts over economic goals.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 368 The Canadian West

The prairie west since the mid-nineteenth century. The focus will be upon the emergence of a distinctive region and its place in Canadian development. The approach will be broadly social and cultural.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 370 The American Political Tradition

Conflict and consensus in American political history from the Revolution to the present time. An attempt is made to analyze, and explain the persistence of the ideological and pragmatic strains in American politics. The course deals with American foreign relations as well as with domestic politics.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 372 The United States in the Twentieth Century, 1895–1970

A survey and analysis of the political, economic and social institutions, and foreign policy commitments of the United States.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

HIS 447 Studies in Nineteenth Century Intellectual History

Major French, German and English intellectuals, 1815–1914. Focus on views about morality, work, love, political activism, political quietism, individualism, the social group, the state, placed in their historic and social context.

Prerequisite: At least one University course in modern European history or the equivalent.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 455 Topics in Russian Social and Intellectual History of the Eighteenth and Nineteenth Centuries

Themes and problems relating to Russian historical demography; the state, gentry and bureaucracy; social class and social transformation; industrialization; conservative and radical thought; historiography; the Revolution of 1917. This seminar is also designed to introduce students to the tools and skills of the historian, a familiarity with bibliography and the craft of historical research and writing.

Prerequisite: HIS 250, or permission of instructor.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 478 Topics in Twentieth Century American Diplomacy

An introduction to the major foreign policies of the United States from the 1880's to the present, emphasizing the motivations and patterns of action of policy-makers. Primarily a reading course.

Prerequisite: HIS 270/271/370/372

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

The following courses are offered by the Department of Classics:

Greek and Roman History**COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS****GRH 100 Greek and Roman Civilization**

Its political, economic and cultural evolution, beginning in an age of independent city-states, reaching rich maturity in the Hellenistic age of Great Powers, and culminating in the multiracial and multicultural Roman empire. Its place in world history.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

GRH 200 Greek History to the Death of Alexander

Political, economic and intellectual progress and achievement in the Greek classical age.

Exclusion: GRH 100 if taken in the same year of study.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

GRH 216 Alexander the Great and the Hellenistic Age

The psychology of power. The course will examine the relations of Alexander with his generals, as his conquests made him a threat to even his closest associates.

Recommended preparation: GRH 100/200/201

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

GRH 300 The Roman Empire

Constitutional, economic, military and religious problems of a world state and a declining civilization.

Exclusion: GRH 100 if taken in the same year of study.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

The following courses are offered by the Department of Islamic Studies:

ISL 201F Muhammad and the Rise of the Islamic Empire to 861 AD.

The course describes those features of pre-Islamic Arabia inherited by Islam, and examines the life, times and teachings of Muhammad in some detail. It continues with the political, administrative and cultural history of the Orthodox Caliphate, the Umayyads and the early 'Abbasids. The early intellectual and religious movements in Islam, and the first Muslim sects, are also discussed. (Offered only in the evening)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ISL 203S The Islamic Empire in Decline (861–1258 A.D.)

The assassination of al-Mutawakkil in 861 led to the decline of the institution of the Caliphate, and resulted in the rise of the Turks and of autonomous provincial dynasties. Nevertheless this period witnessed the highest development of Islamic culture, and its political, economic and social factors are analysed. The course concludes with the coming of the Mongols in 1258. (Offered only in the evening)

Recommended Preparation: ISL 200 / 201F

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

ISL 206S Cultural Attitudes in the Islamic World

This course examines attitudes on a variety of subjects, including the family, political authority, law, the community, and Western civilization. Particular attention is given to changing attitudes in the modern Islamic world. (Offered only in the evening)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

History and Philosophy of Science and Technology

Offered by the Institute for the History and Philosophy of Science and Technology

Director/Professor J.W. Abrams

Undergraduate Secretary/Professor M.P. Winsor

Enquiries/ 191 College Street, upstairs (928-5047 for appointment)

The Institute does not offer an undergraduate programme for specialists. However, because human thought and action are today, as in the past, heavily shaped by science and technology, the study of the history of these fields is considered as a valuable basis for a better understanding of the modern world. The HPS courses (see also HIS 320) will investigate, as an important question in its own right, the historical development of the peculiar human activities called science and technology. No technical or scientific background is required for the courses whose contents are described below. They have been designed for students interested in the history of science and technology and their interaction with society, not to convey specific technical knowledge to the non-scientist nor to familiarize the scientist with the names of the founders of his field. They are suitable for students of all disciplines.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

HPS 200 **History of Scientific Ideas**

The evolution of scientific ideas and methods from early times to the present, studied through the works of such men as Galileo, Newton, Darwin and Einstein, and in relation to the societies in which they lived. The historical roots of the nature of modern science will be examined.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Innis College Courses

Academic Co-ordinator/Mr. D.B. King

Enquiries/63 St. George Street, Room 201 (928-2511 for appointment)

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

INI 202 **Canadian Culture and Society**

An introduction to aspects of Canadian Culture and Society, arranged for students for whom English is a second language. The facilities of the Extension Writing Laboratory are available for help in the preparation of written and oral reports.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

INI 300 **Education and Society**

An analysis of critical problems and issues in education and the contributions of the major disciplines in their resolution. Current educational thought and practice will be emphasized, with particular reference to the Province of Ontario.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

INI 400 **Selected Topics in Education**

A seminar course dealing with the relationship of a particular discipline (Economics, Political Science, Psychology, etc.) to the study of education.

Prerequisite: INI 300 (or CIN 300) (1970–71)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Interdisciplinary Studies

Academic Co-ordinator/Professor G. Payzant

Enquiries/97 St. George Street, 3rd floor (928–6423 for appointment)

“Interdisciplinary Studies” is the name given to a special programme of courses administered by the Faculty of Arts and Science. These courses are in subjects which, because of their innovative character, might not readily be accommodated within the programmes of the regular academic departments.

The Environmental Studies courses are offered in association with the Institute for Environmental Sciences and Engineering. These courses are given by teams of teachers from various disciplines such as botany, economics, geography, hydrology, law, and zoology. The Co-ordinator for all “INX” Environmental Studies courses is Professor M. Telford, Department of Zoology.

Other subject areas in Interdisciplinary Studies include Communications, Modernization and Community, Quebec Studies, Theory, Method and Practice, and Women’s Studies.

In addition, special seminar courses called “Symposium” are introduced and operated by Interdisciplinary Studies. In 1971–72 there were Symposia on the two following topics: Alternatives in Education, Topics in University Government. The procedure for presenting Symposium topics is described under “INX Symposium” in the list of Interdisciplinary Studies course offerings.

Interdisciplinary Studies courses are open to qualified students in Arts and Science and in other Faculties of the University of Toronto.

Because Interdisciplinary Studies is an evolving and expanding programme, it is possible that there will be changes and additions in its lists of course descriptions. For the latest information students should write to Interdisciplinary Studies, 97 St. George Street, University of Toronto, Toronto 181.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

INX 220 **Environmental Issues**

A multi-disciplinary approach to issues arising from the interaction of living organisms, especially humans, with their environment. The growth of human populations and its demands on raw materials, energy, and living space will be presented in the context of current environmental problems. Strong emphasis is to be laid on visually presented material, class discussion, and personal study.

Exclusion: FSE 200 (1971-72)

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

INX 260 **Women: Oppression and Liberation**

The aim of this course is to develop an understanding of the position of women in Canada today. Women and the media, the family, sexuality, the workforce and revolution, will be studied in historical, cross-cultural, and contemporary contexts.

Exclusion: FSW 200

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

INX 302 **Alternatives in Education**

The emergence of many alternative schools and educational experiments in North America will be studied in seminars and by means of visits to nearby experimental schools.

Exclusion: FSY 301 (in 1971-72)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

INX 331 **Workshop in Community Involvement**

Projects in the city with resource persons. The combination of fieldwork and seminars is designed to overcome the massive split between theory and practice in attempts at social understanding. This course is open to students who have completed two years of full-time study in any faculty.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

INX 370 **The Indian Sub-continent: Contemporary Problems**

Major problems of modernization and tradition in contemporary India. Topics will include: types of mobilization and aspects of politicization of society; economic planning; social reform; geographical identity and definition; linguistic policy; institutional developments.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

INX 430 **Special Topics in Modernization**

Individual or team research projects, ordinarily continuations of work done in FSM 301 or 302.

Prerequisite: FSM 301-/302

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Islamic Studies

Chairman of Department/Professor R.M. Savory

Undergraduate Secretary/Professor R. Sandler

Enquiries/455 Spadina Avenue, Room 401 (928-3307 for appointment)

The discipline of Islamic Studies is concerned with the total culture and civilization of the Islamic world from the advent of Islam in the 7th century A.D. up to the present day. By 'Islamic world' is meant those regions where Islam is, or was, the dominant religion. It is therefore not limited to the Middle East, but includes areas as far apart as North Africa and Spain on the one hand, and China, Malaya and Indonesia on the other. Today, about 450,000,000 people call themselves Muslims. The study of Islamic civilization thus introduces the student to the culture of about one-sixth of the total population of the world.

The discipline of Islamic Studies is concerned with the study of the literature, history, religion, philosophy, thought, art and architecture of the Islamic world as defined above. Because languages are the key to the understanding of any culture, courses are offered in the principal languages of Islam: Arabic, Persian, and Turkish. In addition, Urdu is available at the graduate level. Of these, Arabic is the most important; Arabia was the birthplace of Islam, and Arabic is the language of the Qur'an, the revealed scriptures of Islam. Today, Arabic is the common language of people from Morocco to the borders of Persia, and from Syria to the Sudan. But Muslims speaking and writing Persian, Turkish or Urdu have, through the centuries, made a vital contribution to that unique cultural achievement which we call Islamic civilization.

The discipline of Islamic Studies is conceived in the broad tradition of the humanities. Its special appeal is that it affords the student the opportunity of studying a non-Western civilization. No longer can the West be content to ignore, or to have only vague and prejudicious ideas about, a substantial proportion of mankind. It follows that the civilization of Islam merits study for its own sake.

There are many careers open to students in Islamic Studies. These include: university teaching; specialist Islamic librarianship (for those qualified in both Islamic Studies and Library Science); public administration; business; high school teaching; Islamic art and archaeology (usually connected with work in museums); journalism, and bibliographical work. Undergraduate history courses offered by the Department of Islamic Studies are accepted by The College of Education as history credits toward Type A eligibility in History.

At the graduate level opportunities for advanced study are also provided, and graduate students are encouraged to take courses in other departments and centres in addition to courses specifically related to Islamic Studies. Such departments and centres include the Centre for Medieval Studies, the

Centre for Linguistics, the International Studies Programme, the Department of Philosophy, the Pontifical Institute for Medieval Studies, and the Centre for Russian and East European Studies. There are many areas of research in which fruitful co-operation is possible between the discipline of Islamic Studies and other disciplines: for example, with Hispanic Studies, for the study of Islamic civilization in Spain; with Medieval Philosophy and Classics, for the influence of neo-Platonism on the Muslim scholastic theologians and political philosophers, to name but one possible area; with History, for the study of those periods during which there was close contact between Islam and Christendom, for instance, the Crusades, the Mongol invasions of western Asia and eastern Europe, and the 600 years of the Ottoman Empire; and with International Studies, for the study of political and social developments in the modern Islamic world. For the linguist, the philosopher, the historian, the social scientist, and the student of comparative literature, the interaction between the two civilizations affords stimulating comparisons. Students should have these opportunities in mind when selecting the courses in their undergraduate programmes.

The undergraduate programme for students seeking to specialize in Islamic Studies is distinguished primarily by its insistence on real competence in at least one Islamic language. A student intending to proceed to graduate work in this discipline is urged to study a second Islamic language, but this is not mandatory. At the same time, no proper understanding of Islamic civilization can be achieved without a thorough knowledge of Islamic history. The Islamic Studies Programme is defined as a minimum of nine courses in Islamic Studies, of which at least three shall be language courses. A wide variety of options is offered in each year. Students who intend to enrol in this programme are urged to contact the Undergraduate Secretary of the Department of Islamic Studies as soon as possible, and in any case not later than the end of their First year, so that the options which best suit their interests and needs may be selected. The number of prerequisites for courses has been kept to a minimum, but the sequential nature of language teaching requires that a less advanced language course will normally be the prerequisite for a more advanced language course.

Note: ISL 214 Introductory Standard Arabic is available to students in first year, and students, particularly those intending to follow the programme in Islamic Studies, are encouraged to take it in first year.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

ISL 214 **Introductory Standard Arabic**

The study of the Arabic language is fundamental to work in Islamic Studies. In this course the student is introduced to the structure of Standard Arabic, neither obviously 'classical' nor markedly 'modern' in character. Normally, native speakers of Arabic are not admissible to this course. Exceptions may be made in the case of students who have little or no

knowledge of the literary language. *In all cases*, native speakers should consult the Undergraduate Secretary of the Department before enrolling in this course. (Offered only in the evening)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ISL 217F Arabic Literature in North America (in translation)

A study of the Arabic literary movement in North America in the 20th century, with emphasis on the most important and popular Arab-American authors: Gibran, Nu'aymah, Abu Madi, 'Aridah, Nadrah Haddād, Ayyub, etc. (Offered only in the evening)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

ISL 201F Muhammad and the Rise of the Islamic Empire to 861 A.D.

The course describes those features of pre-Islamic Arabia inherited by Islam, and examines the life, times and teachings of Muhammad in some detail. It continues with the political, administrative and cultural history of the Orthodox Caliphate, the Umayyads and the early 'Abbasids. The early intellectual and religious movements in Islam, and the first Muslim sects, are also discussed. (Offered only in the evening)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ISL 203S The Islamic Empire in Decline (861-1258 A.D.)

The assassination of al-Mutawakkil in 861 led to the decline of the institution of the Caliphate, and resulted in the rise of the Turks and of autonomous provincial dynasties. Nevertheless this period witnessed the highest development of Islamic culture, and its political, economic and social factors are analysed. The course concludes with the coming of the Mongols in 1258. (Offered only in the evening)

Recommended Preparation: ISL 200/201F

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ISL 206S Cultural Attitudes in the Islamic World

This course examines attitudes on a variety of subjects, including the family, political authority, law, the community, and Western civilization. Particular attention is given to changing attitudes in the modern Islamic world. (Offered only in the evening)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

ISL 321 Advanced Standard Arabic I

The study of connected passages of literary Arabic from both classical and modern times is undertaken at this stage, with slightly more emphasis being placed on the modern period. Exercises in grammar and composition are prescribed in coordination with the reading material. Oral comprehension is also stressed. (Offered only in the evening)

Prerequisite: ISL 220

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Italian

Offered by the Department of Italian and Hispanic Studies

Chairman of Department/Professor G.L. Stagg

Undergraduate Secretary/Professor M.E. Rugg

Enquiries/21 Sussex Avenue, Room 224 (928-3357 for appointment)

To study 'Italian' is not only to acquire a language, but also to study a rich literature and many-sided culture which have played an important, and sometimes dominant, role in western civilization. For Canadians, the Italian contribution bears a special significance: the vast influx of Italians in recent years has brought changes in our way of life and a living presence to reinforce traditional Italian influences, while, in time, enriching the meaning of the term 'Canadian.'

At the University of Toronto, Italian courses are offered for beginners and for students with Grade XIII standing or equivalent (i.e. 'matriculants') in the subject. Stress is laid on both the spoken and written language and opportunities are provided for practice in each year. In the First Year, beginners receive an intensive course including work in the language laboratory (ITA 100); dialect speakers without Grade XIII standing or equivalent are offered a full course (ITA 110) designed to meet their special needs; students with Grade XIII standing or equivalent take one of the two language half-courses ITA 120Y or ITA 190Y according to their level of proficiency, either one of which is a co-requisite for the full course ITA 121 and the half-course ITA 122Y, dealing respectively with the twentieth-century novel and theatre. Students well qualified in the Italian language may be excused language courses in the first and second years. ITA 121 and 122Y are also open to students of ITA 110. The full course ITA 141, open to students of ITA 100 only, provides extra language practice, especially oral. In the Second Year, students take either the language full course ITA 220, which includes oral practice and is intended primarily for 'ex-beginners,' or one of the language courses ITA 221 or ITA 290Y according to their level of proficiency: ITA 290Y involves private study under supervision. They may also take any or all of the following: ITA 222, ITA 223Y, ITA 224F, ITA 225S, all of which deal with nineteenth- and twentieth-century literature. Almost all 300- and 400-series courses and half-courses are open to students who have taken ITA 220 or ITA 221 or ITA 290Y, though ITA 321 is a co-requisite for the other literature offerings in these two series. ITA 320, a full course on language, has ITA 220 as its prerequisite. Third-year students may take 400-series courses if they wish. 300- and 400-series courses offer a wide range of options in literature and language. It is not necessary to take language courses in the third and fourth years, but language courses may be taken without literature courses. In all years, outstanding literary works are read not only for their individual artistic value, but also to illustrate the outlook and intellectual climate of their

age. Group discussions and the preparation of reports and essays are important means to this end.

In view of the presence of many native speakers among students of Italian, oral courses are optional and no longer appear among those giving credit (except for ITA 141 and, in part, ITA 220 and ITA 320); instead, such courses will be offered at varying levels for those students who need them. Thus students may join the group appropriate for them regardless of their year, and change groups in accordance with their progress. Proficiency in oral work will be certified by the Department.

With the recent growth of Italian in the secondary schools of Ontario, openings for teachers qualified in Italian and another language are increasing. At the university level, there has existed for some years in North America a shortage of faculty members in Italian. In addition, the study of Italian, as of other modern languages, may prepare students for such careers as the foreign service, publishing, journalism, and commercial or cultural relations between Canada and Italy.

Italian may be combined with other modern languages and literatures, including English; the appreciation of mutual influences will broaden the student's understanding of each. The three great Italian writers of the fourteenth century, Dante, Petrarch and Boccaccio, and the Italian Renaissance of the two following centuries, profoundly influenced other European literatures. Italian also combines naturally with Latin, and is useful in Fine Art and Music. Programmes for students who wish to specialize equally in Italian and another modern language or Latin require two courses in Italian and the equivalent in the other language in each of the Second, Third and Fourth Years, and at least one course in each subject in the First Year. These students may take additional courses in Italian if they wish and if their programme permits. A selection of at least seven courses as outlined would qualify them for entry to graduate studies in Italian at most universities (though non-matriculants intending to do graduate work in Italian at this University should include eight courses in their undergraduate programme).

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

Note: Students with an adequate knowledge of Italian may substitute another Italian option for language courses and half-courses in the First and Second Years.

ITA 100 **Italian Language for Beginners**

In this course the student is introduced to the main elements of Italian grammar. The study of modern Italian authors is begun in the second term, with emphasis on language and literary analysis. Oral practice in the classroom and laboratory training are stressed throughout the year. (May not be taken by students with XIII ITA or whose knowledge of Italian is equivalent to or better than that required for XIII ITA.)

Exclusion: ITA 110/120Y/121/122F/190Y

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

ITA 110 Italian Language for Dialect Speakers

A course designed for students of Italian descent, born or raised in Canada, who speak an Italian dialect at home, but who have not formally studied standard Italian. The course, conducted entirely in Italian, aims to develop both oral fluency and the ability to write correctly. During the second term, contemporary Italian texts of literary or social significance will be studied. Can be taken only at the discretion of the Department.

Exclusion: ITA 100/120Y/141/190Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

TA 120Y Language Practice

This course, conducted entirely in Italian, will be for students with Grade XIII Italian or equivalent. It will consist of a review of grammar and the writing of short compositions.

Exclusion: ITA 100/110/141/190Y

Prerequisite: XIII ITA

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

ITA 121 Modern Italian Novel

Outstanding novels of this century will be analysed from an artistic viewpoint and discussed within the context of social and intellectual problems of present day Italy.

Exclusion: ITA 100/141

Prerequisite: XIII ITA

Co-requisite: ITA 110/120Y/190Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

TA 122Y Modern Italian Theatre

An introduction to the *teatro grottesco*, one of the important theatrical movements of modern Italy which has contributed to the development of the ideas of relativity and absurdity.

Exclusion: ITA 100/141

Prerequisite: XIII ITA

Co-requisite: ITA 110/120Y/190Y

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS**ITA 220 Intermediate Italian**

Discussions and drills in Italian Grammar. Exercises in writing brief essays in Italian. The course is conducted primarily in Italian and will include opportunities for oral practice.

Exclusion: ITA 221/290Y (or ITA 220Y in 1970-71)

Prerequisite: ITA 100

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

ITA 221 Prose Expression in Italian

Discussion of problems connected with vocabulary and syntax. Analysis of examples of modern expository prose. Exercises in essay writing. The course is conducted in Italian.

Exclusion: ITA 220/290Y

Prerequisite: ITA 110/120Y/190Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ITA 222 Nineteenth and Twentieth Century Novel

Manzoni's development of the historical novel as a vehicle for his vision of life. *Verismo* and Verga's new technique to express the social and political problems facing United Italy. The novel after the Second World War. Political consciousness in a fragmented world. The anti-hero and the importance of myth.

Prerequisite: ITA 100/110/120Y/190Y

Co-requisite: ITA 220/221/290Y

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

ITA 223Y Twentieth Century Italian Theatre

The problem of the subconscious in the psychological drama of Bracco. New techniques in the theatre and their use by D'Annunzio and Pirandello. Themes of justice and guilt in post-World War II drama.

Prerequisite: ITA 100/110/120Y/190Y

Co-requisite: ITA 220/221/290Y

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

ITA 224F Nineteenth Century Italian Poetry

A study of the major Italian poets of the nineteenth century, with special reference to Leopardi, Pascoli and D'Annunzio.

Prerequisite: ITA 100/110/120Y/190Y

Co-requisite: ITA 220/221/290Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ITA 225S Twentieth Century Italian Poetry

A study of the major Italian poets of the twentieth century with special reference to Ungaretti, Montale and Quasimodo.

Prerequisite: ITA 100/110/120Y/190Y

Co-requisite: ITA 220/221/290Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

Note: Courses in the 300 and 400 series may be taken in Third or Fourth Years, but the choice of option is subject to the approval of the Department.

ITA 320 Language Practice

Prose passages will be analysed for a better understanding of the structure of the language and will serve also as a source of topics for compositions

in Italian. Problems of grammar and syntax will be discussed according as they occur in individual compositions.

Prerequisite: ITA 220

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

ITA 321 **Dante**

A study of the *Divina Commedia* (*Inferno* and *Purgatorio*) within the literary and social context of the Middle Ages.

Prerequisite: ITA 220/221Y/290Y

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

ITA 323S **Trends in Renaissance Thought**

The emphasis will fall on the Renaissance view of man and of his place in the political and social spheres and also on concepts of history in their relationship with this view. Among prose authors read will be Machiavelli, Guicciardini and Castiglione.

Prerequisite: ITA 220/221Y/290Y

Co-requisite: ITA 321

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ITA 325Y **Eighteenth Century Theatre**

Tradition and innovation in dramatic forms with particular concentration on the music-drama, comedy and tragedy. Selected plays of Metastasio, Goldoni and Alfieri.

Prerequisite: ITA 220/221Y/290Y

Co-requisite: ITA 321

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ITA 420 **Renaissance Epic Poetry**

The development from Arthurian and Carolingian legends to romances of chivalry. Ariosto's *Orlando Furioso* as a Renaissance work of art; Tasso's *Gerusalemme Liberata* as typical of the Counter-Reformation.

Prerequisite: ITA 220/221Y/290Y

Co-requisite: ITA 321

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ITA 421Y **Renaissance Lyric Poetry and Drama**

Introduction to the lyric poetry of the Renaissance in Italy. Influence of Petrarca in the sixteenth century. Comedy, tragedy and pastoral tragic-comedy in the sixteenth century in Italy.

Prerequisite: ITA 220/221Y/290Y

Co-requisite: ITA 321

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ITA 422F **Concepts of the Baroque**

Seventeenth century philosophical, scientific, historical, and literary prose.

Selections from the works of Bruno, Campanella, Galileo, Boccacini, Sarpi, Bartoli, Redi, and Magalotti.

Prerequisite: ITA 220/221Y/290Y

Co-requisite: ITA 321

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ITA 423F **Arcadia and the Enlightenment**

Aspects of eighteenth century thought as reflected in the prose works of Muratori, Gravina, Vico, Baretti, Beccaria and Cesarotti.

Prerequisite: ITA 220/221Y/290Y

Co-requisite: ITA 321

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ITA 424Y **Dante's Paradiso**

The nodal images and key allegories of "Paradiso terrestre." The fusion of Christian symbolism and Roman mythology in the third *cantica* of the *Commedia*. Autobiography, history, and criticism of contemporary institutions and public figures in *Paradiso*. Realism and fiction in Dante's cosmology of the heavens.

Prerequisite: ITA 220/221Y/290Y and 321

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

ITA 426Y **Studies in the Twentieth Century Italian Novel**

An analysis of some novels representing the development of new trends from the turn of the century to the present. Themes will vary from those closely linked with historical events to the existential approach in contemporary fiction.

Prerequisite: ITA 220/221Y/290Y

Co-requisite: ITA 321

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

ITA 428Y **Neo-Classic and Pre-Romantic Poetry**

The uses of myth and the 'new man' in the poetry of Parini, Alfieri, Monti and Foscolo.

Prerequisite: ITA 220/221Y/290Y

Co-requisite: ITA 321

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ITA 430S **History of the Italian Language**

The linguistic transition from Latin to Italian. Historical phonology and morphology, and problems relating to syntax and lexicon. Reading and linguistic analysis of early Italian texts. The course is conducted in Italian.

Prerequisite: ITA 220/221Y/290Y

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

JAPANESE See 'East Asian Studies'

LATIN See 'Classical Studies'

Linguistics

Director, Centre for Linguistic Studies/Professor N.E. Collinge
Undergraduate Co-ordinator/Professor J.K. Chambers
Enquiries/43 Queen's Park Crescent (928-6489 for appointment)

The aim of Linguistics is to develop an understanding of how all languages work, and of how languages use disparate means for the same effects. The theme is the unity and the variety of human language. Such a theme subsumes many variations, including grammatical theory and its application to data, language divergence and convergence in space and time, and the sociocultural stratification of linguistic systems.

Undergraduate Linguistics is justified principally as a normal component of a liberal education. It is naturally available as pre-professional training for teaching and research in disciplines such as psychology, philosophy, literature and language studies, where the contribution of Linguistics is increasingly recognized as important. But the principal aim is to make a contribution to a liberal education within the undergraduate years, an enrichment of the preparation for civic life and for a broad spectrum of professions.

There is no fixed programme for specializing in Linguistics alone. Instead, appropriate programmes are created (with advice when asked for) by the students, who are encouraged to combine Linguistics and some convergent area(s), such as Anthropology, Computer Science, English, Mathematics, Modern Languages, Philosophy, Psychology, Sociology, etc. Five or six Linguistics courses is the normal component for a combined programme, but in any case the total number of Linguistics courses in an undergraduate programme is limited to eight.

The admission requirements for the one-year M.A. programme in Linguistics can be completed within any three undergraduate years. The requirements are: JAL 100, LIN 228F & 229S, LIN 230, LIN 326 (or EAS 100/EAS 120/ISL 216/NES 142), and two other LIN or JAL courses: in place of one or both of these latter two, permission is regularly given to substitute ANT 222, PSY 224F, etc.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

JAL 100 **Introduction to General Linguistics**

Lectures on fundamental principles with illustrations from English and from a broad spectrum of other languages. Tutorials for practice in production and recognition of speech sounds, and elementary analytic techniques. (See also under Anthropology)

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

LIN 228F **Phonetics**

Investigation of the sounds most commonly used in languages from an articulatory and acoustic point of view, with practice in their recognition and production.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

LIN 229S **Sound Patterns in Language**

The nature and organization of phonological systems, with survey of their variety and practical work in analysis.

Prerequisite: JAL 100 and LIN 228F, or departmental consent

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

LIN 230 **Grammatical Patterns in Language**

The nature and organization of morphological and syntactic systems, the relation of these to semantic systems and the linguistic organization of discourse, together with practical work in grammatical analysis.

Prerequisite: JAL 100 or departmental consent

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

LIN 326 **Linguistic Approach to (e.g., Mohawk, Swahili etc.)**

Systematic introduction to a spoken language, making use of methodology gained in JAL 100 and showing its relevance to practical language work.

Prerequisite: JAL 100 or departmental consent

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

LIN 333 **Structure of English**

A systematic approach to the structure of present-day English, with attention to semantic, syntactic and phonological patterns.

Prerequisite: JAL 100 or departmental consent

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

Mathematics

Includes Actuarial Science (ACT), Applied Mathematics (APM), Mathematics (MAT), and Statistics (STA)

Chairman of Department/Professor G.F.D. Duff

Undergraduate Secretary/Professor R. Wormleighton

Student Counselling/928-5082 for appointment

Enquiries/Sidney Smith Hall, Room 5016E (928-5166)

Mathematics historically was concerned with concrete notions of space and number. From these concrete notions have evolved such abstract ideas as 'set' and 'group' which form the subject matter of contemporary Mathematics, and Mathematics today may be considered as the art or science of

making deductions from given statements. The deductions themselves and the methods used to make them come within the scope of Mathematics, while the original statements (hypotheses) largely lie outside. The observation that the results deduced apply to any collection of objects and relations that satisfy the hypotheses is the key to the immense power and surprisingly wide utility of Mathematics.

There are many different motivations for the study of Mathematics. To the humanist, mathematics is part of the mainstream of human culture. To the scientist, engineer, or social scientist it is an important working tool. To the mathematician, it is an end in itself. The Department of Mathematics attempts to provide courses to suit all these diverse viewpoints.

The pure mathematician is interested in abstract mathematical structures in their own right. He is guided by considerations of taste, beauty, and rigour and may view his subject as an art. The main fields of pure Mathematics are algebra, analysis, geometry, topology, and foundations.

The applied mathematician is more interested in how he can use those structures to study some aspect of the world around him. Applied Mathematics, originally used to describe the application of Mathematics to certain classical fields of Physics, today includes also such fields as optimization theory, communication theory, combinatorics, theory of games and numerical analysis. (Such areas as programming languages and automata form part of the rapidly growing subject of Computer Science.) Originally used to describe the collection and tabulation of records required for conducting the affairs of a State, Statistics today is a discipline concerned with the production and assessment of quantitative evidence. Actuarial Science includes such topics as the theory of compound interest, and the application of probability theory to the hazards of survival. Although historically the main applications of Mathematics have been to physical sciences, contemporary Mathematics has significant utility for nearly all sciences, and for such diverse subjects as Economics and Linguistics. Mathematics is the language of precise thought.

The professional mathematician is most likely to find employment in universities, in the civil service or in government laboratories, and in financially or technologically oriented business firms. Research positions require post-graduate study. Such fields as teaching, computing, applied statistics, and actuarial science offer opportunities for BSc graduates. A training in Mathematics has traditionally been a strong preparation for careers in law and business; today it is also an excellent foundation for further work in a wide variety of fields in the sciences and social sciences, especially when the interplay of many complex factors is involved.

Students who are contemplating graduate work in Mathematics, Applied Mathematics, or Statistics are advised to follow the Programme in Mathematics. The Programme in Mathematical Studies is designed mainly for those who, after graduation, wish to use their mathematical training in other fields; it provides rather more flexibility and a correspondingly reduced emphasis on mathematical analysis. The Programme in Mathematics for Teaching is less concentrated, but also satisfies the Type A

requirements of The College of Education. The Programme in Actuarial Science is designed to meet the specialized requirements of this field. For students with interdisciplinary interests, programmes in Chemistry and Mathematics, Mathematics and Biology, Mathematics and Economics, Mathematics and Linguistics, Mathematics and Philosophy, and Mathematical Physics are available. Students who contemplate enrolling in these programmes of specialization should consult the requirements given elsewhere. These programmes are of course only suggestions for specified purposes: they are not the only programmes combining the subjects indicated by their names. Students are encouraged to make up their own combinations of courses to meet their own needs.

The sequential nature of Mathematics means that prerequisites are essential in many courses and steady work is usually required. Students are advised to consult the prerequisites of courses in which they may be interested in subsequent years. A student who wishes to take a course in Mathematics for which he lacks the required prerequisite may be permitted to do so if, in the opinion of the Department, he demonstrates adequate preparation for the course. He must apply to the Undergraduate Secretary of the Department for such waiver of prerequisite and is strongly advised to do so, preferably in person, as early as possible, and at least two months before the beginning of term. At that time suitable study material will be suggested. An examination may be required before the beginning of term.

All courses offered by the Department are open to all students having appropriate prerequisites and co-requisites unless otherwise noted.

Grade 13 prerequisites are stated both in terms of MAT A and B, and in terms of the three single-credit courses recently introduced. The following notation is used for the latter:

MAT 1: Functions and Relations

MAT 2: Calculus

MAT 3: Algebra

The following courses have prerequisites that are normally met by students entering the University from the secondary schools:

No prerequisite: MAT 110, MAT 120

Prerequisite of MAT A/MAT 1: MAT 130, MAT 225

Prerequisite of MAT A/MAT 1 and 2: MAT 134, MAT 135

Prerequisite of MAT A and B/MAT 1, 2 and 3: MAT 139, MAT 140, MAT 150.

Only one course in each of the following exclusion groups can be taken for credit towards a degree, because of similarity of content:

(i) MAT 110, 130, 134, 135, 139, 150

(ii) MAT 140, 224F, 225

Other exclusions are given with course descriptions.

Students with both MAT A and B (with high marks) in Grade XIII who are contemplating a programme of specialization in Mathematics (including Applied Mathematics and Statistics) are advised to take MAT 140 and 150. Students with the same background who can take only one course in

Mathematics should elect MAT 139: if they later wish to follow the Mathematics Programme, they should consult the Undergraduate Secretary. MAT 135 and 134 have the same mathematical content but are designed for students interested primarily in science or social science, and are less intensive than MAT 139 or 150. Students with less than 66% in MAT A are advised not to select these courses. MAT 130 is a less demanding calculus course that still provides an adequate foundation for further work. MAT 110 is a special version of MAT 130 designed for students without Grade XIII Mathematics: MAT 110 and 130 are equivalent for prerequisite purposes. MAT 120 is a cultural course, particularly for students in the humanities or other non-science fields who seek to learn something about Mathematics as a discipline rather than gain a technical training in the subject. Students should consult the section 'BSc Programmes' and the departmental advisers for further information. Appointments for individual counselling should be arranged with the Undergraduate Secretary of the Department.

APPLIED MATHEMATICS

APM 331F **Applied Differential Equations**

A study of ordinary and partial differential equations in a physical context.

Exclusion: MAT 244F/APM 251

Co-requisite: MAT 230/234/235/239/250

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

APM 336S **Mathematical Models in the Social Sciences**

Illustrative mathematical models in the behavioural sciences, psychology, sociology, economics and political science. Some acquaintance with calculus, differential equations, matrix algebra and probability theory is advisable.

Reference: Kemeny & Snell, *Mathematical models in the social sciences*.

Prerequisite: Any two MAT courses.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

MATHEMATICS

MAT 110 **Calculus A**

Basic calculus. Techniques of differentiation and integration. Calculation of limits. Related rates. Extreme values. Graph sketching. Applications of integration. (This course is MAT 130 adapted for students with no Grade XIII Mathematics.)

Exclusion: MAT 130/134/135/139/150

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

MAT 130 **Calculus**

Basic calculus. Techniques of differentiation and integration. Calculation of limits. Related rates. Extreme values. Graph sketching. Applications of integration.

Exclusion: MAT 110/134/135/139/150

Prerequisite: XIII MAT A/MAT 1

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

MAT 135 Calculus for Scientists

Limits, continuity, the derivative, extremal problems in one variable. The Riemann integral, antiderivatives and the fundamental theorem. Systematic techniques of integration. Vector spaces, linear transformations, matrices, determinants, linear equations. (MAT 135 has the same mathematical content as MAT 134, but illustrations will be drawn from the Physical Sciences.)

Exclusion: MAT 110/130/134/139/150

Prerequisite: XIII MAT A/MAT 1 and 2

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

MAT 220 Development of Analysis

Brief survey of Greek and mediaeval mathematics. Newton-Leibniz calculus. 18th and 19th century rigour and extensions. Detailed look at some mathematical examples.

Prerequisite: Any MAT course

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

MAT 225 Linear Algebra

Vector spaces, linear transformations, matrices and determinants, linear equations, quadratic forms and their geometrical interpretation.

Exclusion: MAT 140/224F

Prerequisite: XIII MAT A/MAT 1/MAT 110

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

MAT 230 Advanced Calculus

A continuation of MAT 130. The definite integral, expansion in series, partial differentiation, multiple integration, differential equations.

Exclusion: MAT 234/235/239/250

Prerequisite: MAT 110/130/134/135/150

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

MAT 314Y Point-Set Topology

Brief review of set theory. Elementary topology, metric spaces, convexity in linear spaces, fixed point theorems.

Exclusion: MAT 350

Prerequisite: MAT 230/234/235/239/250

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

MAT 364Y Differential Geometry

Differential geometry of curves and surfaces in E^3 . Fundamental theorem of curves, fundamental forms of surfaces, equations of Gauss and Codazzi, constant Gauss curvature and minimal surfaces, parallel transport, the theorem of Gauss-Bonnet.

Prerequisite: MAT 230/234/235/239/250 and MAT 140/224F/225

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

Music

Offered by the Faculty of Music

Faculty of Music Representative/To be announced

Enquiries/Edward Johnson Building (928–3740 for appointment)

The Music courses in the Faculty of Arts and Science present Music as one of the liberal arts, drawing upon concepts of musical analysis and theory to allow exploration in depth. Because this approach to musical style is historical and humanistic, it differs in some respects from courses designed for composers and performers. Professional performing skills are not required for this kind of study.

The Department of Music offers courses of two kinds: those requiring a certain degree of previous musical training, and those requiring no such training.

All students who want to take Music courses must take MUS 100, whether or not they have had previous musical training. Students who lack such training, and those who do not want to specialize in Music, may proceed from MUS 100 to MUS 223, 323, and 423. Students who have the necessary qualifications and who want to do more advanced work in Music will take MUS 140 in addition to MUS 100/122, and then proceed to MUS 222 and 240, which are prerequisites for a wide range of courses in Music. To graduate as a specialist, a student will take a minimum of six courses in languages and humanities in his programme. Detailed requirements are listed in this Calendar under "Suggested Programmes of Study – B.A. Programmes."

Qualified students, whether aiming at specialization or not, are encouraged to take further courses in Music, both in the historical area, there being a large choice of electives from which to draw, and the theoretical (counterpoint, orchestration, musical acoustics, etc.).

Students who wish to obtain training as performers or composers should consult the Calendar of the Faculty of Music.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

MUS 100 **The Study of Music Literature**

An introduction to world music dealing with the repertory of western music from the Middle Ages to the 20th century, non-western music of high civilizations, and popular music. Discussion of form, style and the inter-relationship of music and culture. Required listening and reading lists are distributed at the beginning of the year.

Exclusion: MUS 122

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

MUS 140 Materials of Music I

Harmony: triads, non-harmonic materials, dominant seventh and derivatives, secondary dominants, simple modulation. Elementary forms, and analysis of 18th- and 19th-century literature. Sight singing; melodic, rhythmic and harmonic dictation. Keyboard harmony: chords and scales in all major and minor keys; playing of cadence types; modulation to closely related keys; realization of elementary figured bass. Two-part transposition; and score reading in five clefs. Sight harmonization of simple melodies.

Prerequisite: Students wishing to enter MUS 140 must demonstrate that (a) they possess the ability to read and perform music and (b) they have a knowledge of musical grammar. To satisfy (b) they may submit certificates of the Royal Conservatory of Music of Toronto showing successful completion of Grade II theory and Grade III harmony or their equivalent, or may ask for a special examination.

Co-requisite: MUS 100/122

Exclusion: MUS 120 (1971-72 or earlier)

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

MUS 222 History and Literature of Music

Intensive study of the 17th and 18th centuries, including topics for individual research. Research methods and music bibliography, music editions, sources and reference works.

References: selected scores and Duckles, *Music Reference and Research Materials*, 2nd edition (Free Press)

Prerequisite: MUS 100/122, 140

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

MUS 223 Music in the Contemporary World

The modern repertoire, including electronic, non-Western, and popular music developments. A non-specialist view of recent historical, theoretical, technological, and social advances in music.

Prerequisite: MUS 100 or permission of instructor

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

MUS 240 Materials of Music II

Chromatic harmony and an introduction to twentieth century techniques. Extended forms, and analysis of 19th- and 20th-Century literature. Keyboard harmony, improvisation, altered chords, sight harmonization, figured bass in baroque style, advanced transposition; three-part score leading in five clefs, transposing instruments and simple string quartet scores. Sight singing and dictation.

Prerequisite: MUS 100, 140

Co-requisite: MUS 222

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

MUS 323 Instrumental Music

A detailed study of orchestral, chamber and solo repertoire from the eighteenth century to the present; instrumental characteristics and sounds; musical forms.

Prerequisite: MUS 100/122

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

Near Eastern Studies

Chairman of Combined Department/Professor J. Van Seters

Chairmen of College Departments:

University College/Professor R.J. Williams

Victoria College/Professor E.G. Clarke

Enquiries/University College, Room B101 (928-3181 for appointment)

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

NES 142 **Introductory Modern Hebrew**

Use of an audio-lingual approach: classroom exercises supplemented by drill in the language laboratory. May not be taken by students with Grade XIII Hebrew or whose knowledge of Hebrew is equivalent to or better than that required for Grade XIII Hebrew.

Exclusion: NES 141

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

NES 242 **Intermediate Modern Hebrew**

Intensive reading in modern Hebrew texts: fiction and non-fiction. Conducted in Hebrew. May not be taken by students with Grade XIII Hebrew or whose knowledge of Hebrew is equivalent to or better than that required for Grade XIII Hebrew.

Prerequisite: NES 142 or permission of instructor

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

NES 271 **Ancient Egypt**

The political and cultural history of Egypt from the close of the predynastic period to the conquest of Alexander the Great. Attention will be given to the archaeological and literary evidence. (NES 271 and 272 will be offered in alternate years)

May not be taken in the same year with NES 100.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Philosophy

Chairman of University Department/Professor J.G. Slater

Undergraduate Secretary/Professor L.W. Sumner

Chairmen of College Departments:

Victoria College/Professor J.A. Graff

Trinity College/Professor G. Edison

Enquiries/215 Huron Street, 9th floor (928–3311 for appointment)

The Greek words from which 'philosophy' is formed mean 'love of wisdom' and all great philosophers have been moved by an intense devotion to the search for wisdom. What distinguishes philosophy from the physical and social sciences is its concern not only with the truths which are discovered by means of specialized methods of investigation, but with the implications such discoveries have for individual human beings in their relations with one another and in their understanding and appreciation of the world in which they find themselves. However, it has, in common with the sciences, an abiding interest in those basic assumptions about the nature of the physical and social world which underlie even the methodology by means of which scientists seek to explain their observations. It is from the challenge both to know and to accommodate such discoveries that the most searching and revealing philosophical questions arise.

Whatever his personal background or social position, each man has a set of beliefs about the areas of life which most concern him. But a philosopher is not content to accept, uncriticized and unanalyzed, either the conventional judgements of common sense or the current bases of science and scientific method. The philosopher calls into question even the most cherished of these beliefs, attempting to show that they are either well- or ill-founded, knowledge or false opinion. But the value of the endeavour lies in the questioning itself and not in the admittedly impossible task of coming to a complete understanding of the foundations of our knowledge.

Despite its intrinsic merits and its value as a means of developing critical awareness, there is no obvious practical application to which the student of Philosophy can direct his studies. The discipline is taught exclusively at institutions of higher learning, though it is hoped that it will, in the near future, be possible for graduates of a programme specializing in Philosophy to qualify for entry to a Type A certificate programme at The College of Education. There will, of course, be some students who will want to pursue graduate work in Philosophy, and to become professional philosophers, and many who will want to do further work in fields such as Law or Criminology where some knowledge of Philosophy is a distinct advantage. Many students whose primary interests lie in other areas, such as Classics, Fine Art, Music, Literature, Physical and Social Sciences, and Mathematics, will want to do some work in Philosophy, at least in those areas related to their own fields; e.g., Greek Philosophy, Aesthetics, the Philosophy of Music or of Literature, and the Philosophy of Science or of Mathematics.

A glance through the courses offered in Philosophy will inform any prospective student of the names of some of the philosophers studied, and the special areas investigated in the Philosophy Programmes at the University of Toronto. A dictionary or encyclopedia will supply standard definitions of logic, ethics, epistemology and metaphysics. But whoever wants to know what Philosophy is must do it. A student can learn a great deal from a study of what has been written and thought by such philosophers as Plato and Aristotle, Augustine and Aquinas, Locke and Hume, Descartes and Spinoza, Kant and Hegel, Mill, Russell, Wittgenstein, Husserl, Sartre, and Heidegger. But such study is, nevertheless, only an important preliminary. To read without bold and critical thinking is next to useless.

The Programme in Philosophy requires the successful completion of eighteen half-courses in Philosophy (100 level courses count as two half-courses), at least half of which must be drawn from above the 200 level. Students are urged to balance their programme with courses in other disciplines. To ensure that they are at least minimally prepared for entry into the best North American and British graduate schools, students planning to go on to graduate study in Philosophy are strongly advised to include within their programmes at least two courses in Logic, two 300-level courses in the History of Philosophy and two 300-level tutorial courses. The 100-level introductory courses are intended to serve as an indication of the range of topics, and methods of approach, covered in the discipline. They are not a prerequisite for any further course. However, students who think they might wish to do senior work in Philosophy are strongly advised to take Logic at the 200-level (recommended PHL 250).

The University of Toronto Philosophy Department consists of the University Department (which includes the Ethics Department of University College) and the College Departments at Victoria College and Trinity College. A unified curriculum is offered and students in this Faculty are free to take Philosophy courses wherever they please. However, where timetable permits and where the desired course is offered, students are encouraged to take their Philosophy courses from their "home" Department. Thus Victoria College and Trinity College students should wherever possible enrol in course sections offered by their College Departments. Students from other Colleges should wherever possible enrol in course sections offered by the University Department.

For more information about the Philosophy Department, its teaching staff, programme, and course offerings, the student should consult the Department *Handbook*, which is published annually in the spring for the succeeding year. Copies are available from the University Department (215 Huron Street, ninth floor).

COURSE LISTINGS

All PHL courses are open to students in any year provided they meet the stated prerequisites (if any). Not all courses listed in the Calendar will be offered in a given year. For further information concerning course sections,

their contents and their instructors, students should consult the Department *Handbook*, which is available from the University Department (215 Huron Street, ninth floor) and from the College Departments at Victoria College and Trinity College.

The Department offers three basic introductory courses. A student may take no more than one 100-level course for credit.

PHL 100 Logic, Knowledge, and Reality

An introduction to the areas of philosophy including logic, theory of knowledge, and metaphysics. In that part of the course devoted to logic we will examine elementary techniques of modern symbolic logic and problems in inductive logic and probability. In the remainder of the course we will consider such questions as: What can be known with certainty? What is truth? Could time run backwards? What is real?

Exclusion: PHL 101, PHL 102

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

PHL 101 Value and Man

An introduction to the areas of philosophy including ethics or political philosophy, philosophy of religion, and metaphysics. We will consider such questions as: Why should one be moral? What reason is there for citizens to obey the law? What arguments are there for the existence of God? What is the relation between minds and bodies?

Exclusion: PHL 100, PHL 102

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHL 102 Philosophical Classics

An historical introduction to philosophy, including philosophers such as Plato, Aristotle, Aquinas, Descartes, Berkeley, Hume, Mill, Nietzsche, and Russell.

Exclusion: PHL 100, PHL 101

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PHL 200S Reason and Morality

An examination of the nature and rationality of the moral point of view in human interaction. Arguments for hedonism, moral relativism and egoism will be examined.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHL 201F Ethical Theories

A survey and comparison of the ethical theories of philosophers such as Plato, Aristotle, Hume, Kant, Mill, Moore and Hare.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHL 202S Aesthetics

Some central areas in philosophy of art: the nature of a work of art, modern and traditional definitions and theories of art, aesthetic experience, perception and sensibility, objectivity and non-relativity in criticism, possibility of standards of taste or evaluation.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHL 205F Contemporary Social Issues

A study of principles and arguments in such contemporary problems as sexual morality, urban problems, Canadian nationalism, capital punishment, women's liberation, pollution, civil disobedience, conscientious objection, and revolution.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

PHL 214S Educational Theories

What are the proper goals of an educational system? How are they related to the kinds of social institutions and individual personalities we value?

Topics discussed will be drawn from the following: problems of learning theory, the knowledge industry, compulsory education, indoctrination and regimentation, moral, political and doctrinal neutrality of educational systems.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

PHL 230S Existentialism and Phenomenology

Dominating European philosophy in the last decades, the phenomenologists and existentialists have influenced theology, psychology, anthropology, literature and art. Several thinkers are studied, with emphasis on the sense of human existence, creativity and freedom.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHL 240F The Birth of Western Philosophy I

Plato and His Predecessors The course will cover the development of Presocratic philosophy from a mythical view of nature through the rationalistic systems of Parmenides and the Atomists and other Pluralists, to the moral, epistemological and metaphysical views of Socrates, the Sophists and Plato.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

PHL 241S The Birth of Western Philosophy II

Aristotle and His Successors Among the topics to be discussed:

Aristotle: the nature of the physical universe; man in society; the justification of moral values; basic concepts in metaphysics; formal and informal logic. Epicurus: the atomic theory of matter; theory of knowledge; pleasure as a way of life; is man a free moral agent? The Stoics: The nature of the physical universe: fatalism and free will; the development of logic. Plotinus and the neo-Platonists.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

PHL 243F The Age of Reason: 17th Century Thought

Galileo, Descartes, Leibniz and Newton were the key figures in a scientific and philosophical revolution. Men were forced into a radical rethinking of the powers of reason, the limits of experience, and the nature of man and society in a scientific world. Among the philosophers who dominate this period are Descartes, Hobbes, Leibniz, Locke and Spinoza. Some of the period's minor intellectual figures will also be examined.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

PHL 244S The Age of Enlightenment: 18th Century Thought

The tension between reason and experience as the foundation of knowledge and morality is the theme of this period. Berkeley and Hume stretch the strict reliance upon experience to its logical limits leaving Kant to put the pieces back together in his 'Copernican Revolution.' This course will also include some of the period's minor intellectual figures.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

PHL 250F Modern Symbolic Logic

Symbolic logic provides precise and efficient techniques for analyzing and evaluating arguments. This course is designed to enable the student to acquire basic skills in manipulating symbolic logic formulas and to gain some knowledge of the powers and limitations of formal systems.

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

PHL 251S Probability and Inductive Logic

How do we justify statistical inferences? What do we mean when we say that an event is probable or that some statement is probably true? We will examine a range of ideas on probability and induction current in the natural sciences, the social sciences, and mathematical and statistical literature.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

PHL 260F Existence and Reality

In perceiving, categorizing and classifying reality, we employ certain very basic concepts. We will discuss problems in metaphysics arising in connection with one or more of these concepts: existence, being, space, time, identity, causality, mind, and value.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHL 261S Philosophy of Religion

An introduction to some of the following topics: the nature of religion, religious faith, arguments for God's existence, religious experience, religion and human autonomy, the problem of evil, religious and atheistic existentialism.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHL 312F Philosophy of Law

The nature of law, and its relation to coercion on the one hand and to morality on the other.

Prerequisite: Three courses in philosophy, social science or law.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Philosophy (St. Michael's College)

Chairman of Department/Professor L.E.M. Lynch

Academic Advisers/Professors L.E.M. Lynch

Professor B.F. Brown

Professor R.E. Tully

Enquiries/Teefy Hall, St. Michael's College (921–3151 for appointment)

Throughout its eminent tradition philosophy has been a subject of higher learning, a common feature of university study. It has always been associated with other university subjects, sometimes quite closely, and indeed some of the sciences which are now fully developed and independent of her were once the wards of philosophy. The separation has been advantageous, for the philosopher recognizes that his proper study is not the natural history of the world, nor mental and behavioural processes, nor anything identifiable with the objectives of another university discipline. Though in some of its specialised parts philosophy will make use of the data of other disciplines – of physics and psychology, for instance – it is by its nature incapable of assimilation to another discipline. Philosophy preserves a freedom and a perspective in its enquiry to raise questions which are both critical and comprehensive and which are not systematically examined elsewhere. Instead of merely assuming the standards by which we commonly enumerate facts and generalize from them, it examines those very standards; instead of accepting that the actions of individuals and governments can be clearly described as good or bad, it searches for the meaning of our moral judgments; instead of taking the claims of science and of religion for granted, it asks what bearing scientific truths might have on our conception of what is real and explores the grounds of religious knowledge and belief. In carrying out his work the philosopher examines the language we use to describe and evaluate the world as well as the nature of language itself to describe and evaluate. At the same time he maintains a lively sense of what the great philosophers of the past have said about the problems which concern him. For the university student the opportunity of doing philosophy is both refreshing and challenging. The correlative goals of precision and generality can become a useful counterpoint to courses taken in other disciplines, while the ideal of critical and objective reflection which philosophers encourage is one of the ideals of university life itself. The benefits of doing philosophy can be discovered through taking even a few courses while at university, though obviously they will be more fully realized by proceeding

to a stage that includes some advanced work. Nevertheless, perfection in reasoning or anything resembling it should not be expected. None are aware more than philosophers how easy it is to fall short of the ideal, and the philosopher who becomes an apologist for his viewpoint has forsaken philosophy for dogma. But philosophy is alive where there is critical thinking going on, and the student may often find that discovering mistakes made and dead ends taken in the course of an enquiry can be as instructive and rewarding as bringing that enquiry successfully to an end.

Since well before its federation with the University of Toronto, St. Michael's College has had its own Department of Philosophy. The St. Michael's Department represents one of the ways in which the collegiate system benefits not only those students registered at the College but all students throughout the University. The Department operates as a cohesive unit in the much larger university, ensuring students of thorough supervision both inside and outside class, the indispensable convenience of small lecture and discussion groups at all levels, and the opportunity for association with a college that has a well-established tradition of intellectual excellence at the University of Toronto. The Philosophy Department at St. Michael's offers a complete range of courses staffed by philosophers representing a balanced and fruitful diversity in their approaches to the subject. All courses, including the programme of concentration in philosophy, are open to all students at the University of Toronto.

The introductory course, PHI 150, is regularly offered in six independent sections, each taught by an experienced senior philosopher from the Department, each dealing with a different set of problems taken from different areas of philosophy such as Philosophy of the Social Sciences, Philosophy of Man, Logic and Theory of Knowledge, and the History of Philosophy. The 200-series courses range over the history of philosophy, problematical areas (e.g. PHI 252F *Theory of Knowledge*), key divisional areas (e.g. PHI 270 *Social and Political Philosophy*), and areas of important topical interest (e.g. PHI 276F *Morality, Medicine and the Law*). These courses are designed both for those students who wish to add to their knowledge of philosophy without proceeding to an advanced level as well as for those who do wish to satisfy the prerequisites for 300-level (and 400-level) work. Courses at the 300-level correspond in most instances to the 200-series offerings, exploring to a greater depth the issues and problems which these uncover. A number of the 300-series courses will particularly interest students specialising in other disciplines: these are the problems-oriented seminars in areas such as political philosophy, aesthetics, philosophy of science and philosophy of religion, which will afford an opportunity for advanced research and discussion in small-group seminars. The majority of remaining advanced courses are also open to students not concentrating in philosophy. Two courses, however, are specifically intended for those who are concentrating. These are *Departmental Seminar I* and *II* (PHI 350 and PHI 450) which are jointly taught by several members of the St. Michael's Department, each representing a different method and background in philosophy. In a

collaborative effort, staff and students concentrate on different aspects of philosophical problems as well as on different points of philosophical methodology. The nature of the course is intended by the Department to be a prime example of learning philosophy at first hand by doing it in a way not completely possible in other philosophy courses.

Concentrating in philosophy at St. Michael's takes either of two forms: being a Named Programmer or a Departmental Specialist. The requirements for being a Named Programmer in philosophy are *six* full courses or the equivalent from above the PHI 150-level, at least *three* of these being from the 300-level (including the required *Departmental Seminar I*).

The corresponding requirements for the Departmental Specialist will be *nine* full courses or the equivalent from PHI 150 and above, at least six being from the 300-level (including the required *Departmental Seminar I* and *II*). The programme of concentration at St. Michael's is not regarded by the Department as essentially or exclusively preparation for graduate school work in philosophy (though it satisfies that goal well). Its principal aim is to produce good undergraduate philosophers who are sensitive to the variety, complexity and richness of philosophy. The programme of concentration and especially its Departmental Seminars provide a valuable framework in which the student can pursue qualitative excellence as well as make an informed judgment about whether to continue in philosophy. Each of the following course descriptions indicates the range of topics and/or figures which the Department considers appropriate for that particular course. For more detailed information as to the current instructor, content, readings, etc., consult the annually revised booklet, *SMC Philosophy Courses*, available at the office of Prof. B.F. Brown, Teefy Hall, Rm. 6, St. Michael's College. The staff counsellors listed above welcome enquiries from current or prospective University of Toronto students regarding its courses, its programme of concentration, and the study of philosophy. The Department also hopes that student representatives from the Staff-Student Committee in philosophy will be available to give advice and information during the periods of registration. Please also note the following before turning to the list of courses:

- 1 St. Michael's College philosophy course numberings follow a particular pattern. The first digit (1, 2, 3, 4) indicates the level of a course in the Department's programme of offerings, while the second two digits represent the place of a course at that level: 00-49 represent an historical sequence, 50-99 a range of courses dealing with philosophical areas, divisions and problems.
- 2 Regarding the list of prerequisites, only St. Michael's College courses have been mentioned. Appropriate substitutions may be made for these from among the University Department's own list of courses.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

PHI 210 **Mediaeval Philosophy**

The philosophies of the principal figures of the Mediaeval era, including Augustine, Anselm, Avicenna, Maimonides, Bonaventure, Thomas

Aquinas, Duns Scotus, William of Ockham, and others, on such problems as: the being and nature of God, creation, finite beings, man and the soul, universals, and knowledge.

Exclusion: PHL 242F

Recommended background: PHI 200 or equivalent course in Greek PHL
Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHI 243F **Contemporary British Philosophy**

A survey of the principal figures and doctrines in British philosophy from the period of Moore and Russell to the present.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHI 245S **American Philosophy**

The philosophies of the principal figures of the nineteenth and twentieth centuries, to include some of the following: Emerson, Royce, the Critical Realists, Santayana, the Pragmatists; Peirce, James, and Dewey.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHI 270 **Social and Political Philosophy**

This course is partly historical and partly problematic in orientation. Initially, students will be acquainted with philosophical views that have helped form contemporary political convictions, by the reading of outstanding political thinkers. After this preparation follows discussion of selected problems; e.g., human personality as social and historical, natural and positive law, authority, freedom and conscience, the use of force, war.

Exclusion: PHL 210F/S, PHL 211F/S

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

PHI 280 **Philosophy of Religion**

A critical study of philosophical arguments for and against religious belief, including such topics as: the existence and nature of God; the possibility of knowledge about God; revelation, faith, superstition; myth, metaphor and analogy; the consequences of religious belief for morality; religion and science.

Exclusion: PHL 261F

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

Physics

Chairman of Department/Professor J.M. Daniels

Associate Chairman, Undergraduate Studies/Professor R.L. Armstrong
Enquiries/McLennan Physical Laboratories, Room 327 (928–2936 for appointment)

Physics is the study of material phenomena at its most fundamental level. Everyone has heard of many of the classes of natural phenomena in this category – heat, electricity and magnetism, light, and atomic physics, for

example. The basic principles of all of these subjects were discovered by people who considered themselves physicists (or perhaps natural philosophers), and at the time of their discovery were considered a part of Physics. To many physicists the extension of the frontiers of such fundamental knowledge is an end in itself. Yet almost all of these have given rise to engineering or technological developments, and in many cases are now considered separate branches of engineering on their own. Within the last thirty years, for example, the whole of electronics and nuclear energy has developed from Physics, and many of the techniques pioneered as part of Physics, such as x-ray diffraction, magnetic resonance, and spectroscopy, are now standard tools in Chemistry, Biology and other sciences. For this reason some knowledge of Physics is considered necessary in order to pursue a career in almost any other science. Physics is a pioneering science.

Another point which must be appreciated is that most physical phenomena can hardly be described in other than mathematical terms and a good knowledge of Mathematics is essential for a proper understanding of Physics, so much so that almost one-half of the courses forming a programme that provides for a specialized training in Physics must be in Mathematics. Thus the specialist programme in Physics consists of a set of core courses, including both Physics and Mathematics courses, which are considered to contain the basic knowledge which ought to be possessed by anyone who intends to specialize in Physics or any related subject. Standing in Grade XIII Mathematics and Physics is required to enter the Physics specialist programme *via* PHY 150, but without these the programme may be entered *via* PHY 130, taken in the First Year. The specified courses comprise about half the full programme in the Second, Third and Fourth Years, and the student is able to take a number of additional offerings in Physics which are essential if he contemplates graduate work in the subject. Alternatively, the student may, in addition to the core, take courses in related subjects either to acquire a combined specialization, or to broaden his background. For example the specialist programme in Astrophysics consists of the Physics core plus a number of courses in Astronomy normally taken in the Third and Fourth Year; the same applies to the Chemical Physics programme. There is also a Theoretical Physics specialist programme and one in Physics and Geology. These suggested programmes are listed in this Calendar under the heading 'BSc Programmes.' Others may be easily constructed, for example, Physics and Biology. In choosing his programme, the student should always bear in mind what his future aim may be, and select his courses accordingly. He should remember that Physics is one of the *basic sciences*, and that one of the advantages to be gained by study of Physics should be an ability to turn in many directions. For those who do not wish to specialize in Physics but nevertheless require basic knowledge of the subject, the Department offers a three-course programme (PHY 130, PHY 230 and PHY 301), which is a survey of most of Physics and which can be followed by many of the other courses offered by the Department. Such a programme, while not having the same degree of intensive specialization as the Physics Programme, is a useful alternative

and can lead to a teaching certificate if it includes the number of Physics courses necessary for entrance to the Type A certificate programme at The College of Education. In addition, the Department offers two single course packages – PHY 110, which is a course of selected topics for scientists, and PHY 100, which is a course about Physics rather than a course in Physics, intended for those who wish to become acquainted with physical ideas and thought rather than to learn Physics as a subject.

What career opportunities are there after following a programme of specialization in Physics? This is very difficult to predict. In the last ten years or so, the main employers of Physics graduates have been universities (which have recently undergone a large expansion) and research institutes (mostly under government control and sponsorship). However, more and more positions are becoming available in private industry. Positions in industry seem to be for the most part in developing industries – such as computing, or nuclear energy – where no definite pattern of employment has yet grown up. For a research position a graduate degree (MSc or PhD) is very desirable.

NOTES

1. The reference book(s) listed at the end of a course description will not necessarily be the text(s) for the course. It will, however, give an indication of the level at which the course is to be presented.
2. Students lacking designated pre- or co-requisites for any course should consult the Department.
3. The Department produces an up-to-date brochure describing the undergraduate programme shortly before term begins. Students are urged to secure a copy of this production from the Departmental Office.

100-SERIES COURSES

PHY 130 **Mechanics, Matter and Waves**

A first physics course at an intermediate level for science students. The material to be discussed includes the description of the motion of a single particle, the effect of forces on the motion of a single particle, simple harmonic motion and wave motion, planetary motions and molecular motions and statistical and quantum concepts.

Reference: Armstrong and King, *Mechanics, Waves and Thermal Physics*.

Exclusion: PHY 110, 150

Prerequisite: XIII MAT 1, 3*

Co-requisite: MAT 135/139/(140, 150) (MAT 135 is preferred, but MAT 130 is acceptable)

*Students without XIII PHY will have to work extra hard.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

200-SERIES COURSES

PHY 230 **Electromagnetism**

A lecture and laboratory course in electricity, magnetism and optics. The subject matter will be derived from fundamental principles; the examples

will be directed to specific and useful techniques. PHY 130, 230 and 301 are intended as a basic package for science students who are not specializing in physics.

Exclusion: PHY 220/221S/240Y

Prerequisite: PHY 110/130/150

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

300-SERIES COURSES

PHY 301 **Atomic and Nuclear Physics**

Review of special relativity. Introduction to quantum physics. Hydrogen atom. Electron spin, Zeeman effect. Two electron atoms. Angular momentum, L-S coupling. Many electron atoms, periodic table. Molecules, bonding. H_2^+ and H_2 systems. Atomic nucleus, radioactivity, nuclear reactions. Elementary particles. PHY 130, 230, 301 constitute a basic package for science students not specializing in physics.

Reference: Tipler, *Foundations of Modern Physics*

Prerequisite: PHY 230/220

Co-requisite: Some background in differential equations

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHY 309Y **Molecular Biophysics**

The physical and chemical properties of some biologically important macromolecules in relation to their functions. Techniques such as sedimentation, chromatography, spectroscopy, scattering of photons and electrons. The course is designed to give students with a physics and chemistry background an insight into the application of the exact sciences to the solution of biological problems.

General Biology Reference: Watson, *Molecular Biology of the Gene*.

Prerequisite: PHY 220/230

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PHY 311 **Electric Circuits and Electronics**

Circuit analysis. Physics of vacuum tubes. Semiconductors, diodes, transistors. Transistor circuits. Amplifiers and oscillators. Modulation. Computation, wave shaping, gating. Noise. The laboratory includes some technical work (characteristics of transistors, amplifier design, feedback, etc.), some properties of semiconductors, a building project using state of the art techniques.

Reference: Hunten, *Introduction to Electronics*

Prerequisite: PHY 220/230

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Political Science

Offered by the Department of Political Economy

Chairman of Department/Professor J.S. Dupré

Supervisor of Studies/Mr. P. Silcox

Enquiries/Sidney Smith Hall, Room 3025 (928-3340 for appointment)

The study of Political Science at the University of Toronto is wide-ranging and diverse, including such fields as political theory, Canadian government, international relations, and the detailed examination of political life and processes in numerous foreign societies (developed and developing). Students selecting courses in Political Science may be thinking of a career in public service; some may seek a more profound understanding of political thought and political processes, perhaps for an eventual career in teaching; others may simply wish to know more about the world in which we live. The course offerings in the Department are designed to meet these needs: specialized courses (often with a number of prerequisites) for those who require detailed understanding of particular fields, less specialized (though no less rigorous) courses for those seeking a broad background in politics. Courses in Political Science dovetail with programmes in most of the other disciplines of the social sciences and the humanities: Economics, Sociology, History, Philosophy, and Psychology. A student interested in Canadian studies or urban problems, for example, would be well advised to choose courses from all these disciplines, as would someone interested in international affairs or foreign area studies. A student planning graduate work in the social sciences should seek to obtain a basic understanding of each of these disciplines. Students who plan advanced work in Political Science are strongly urged to prepare themselves with a solid background in Political Theory and Statistical Methods, for these are the tools of the profession.

RECOMMENDED INTRODUCTORY COURSES

POL 100 Introduction to Canadian Politics

A study of the political process in Canada, including Canadian political culture, the formation of public opinion, political behaviour, political parties, the constitution, federalism, French Canada, federal-provincial financial relations, and the structure and functioning of political institutions, such as the cabinet, parliament, the judiciary, and the public service.

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

POL 101 Introduction to Political Philosophy

An examination of political practices, concepts, and institutions including primitive society, the Greek polis and contemporary North American society. Among the topics examined are Greek political philosophy, English constitutional development, Canadian and American political practices.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

POL 200 Political Theory

The development of political thought from the dialogues of Plato to the controversies surrounding the French revolution. Among the theorists examined are Aristotle, Machiavelli, Hobbes, Locke and Rousseau.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

POL 201 Political Behaviour

An introduction to the social and psychological study of politics. Among the topics considered are political élites and political power, class and ethnic conflict, the powers and nature of political ideologies (liberal and conservative, radical and reactionary), political socialization and political estrangement, violence and political extremism.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

POL 203 Politics and Government of the United States

During the first term, this course concentrates on the evolution of the American constitution with particular reference to individual rights, federalism and governmental powers. In the second term, the course deals with the actual operation of government through the workings of politics and administration; it covers executive-legislative relations, parties, pressure groups, the bureaucracy, and foreign affairs.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

POL 204 Politics and Government of the U.S.S.R.

An introduction to the domestic politics and foreign relations of the U.S.S.R., with emphasis on the post-Stalin era. The initial phase will be taken up with the political history, political culture, and institutions of the U.S.S.R., and with a consideration of alternate approaches to the study of Soviet politics. Detailed attention will then be given to the Soviet policy process in both domestic and external affairs. Although the stress will be on internal politics, roughly a quarter of the course will be devoted to external affairs and the impact of external events and foreign policy considerations on the Soviet domestic scene will be emphasized throughout.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

POL 208 Introduction to International Relations

This course is designed to study the behaviour of state (particularly Canada) and non-territorial actors (the U.N., the E.E.C., the multi-national corporation): their motivations, their goals and their instruments. In addition, it focuses on different forms of interaction, ranging along a continuum from conflict to co-operation.

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

Note: The following courses are also open to Second-Year students at the discretion of the instructor if space is available and pre- and co-requisites are satisfied.

POL 302 Politics and Government of Western Europe

An advanced course in comparative government: Germany (East and West), France, Italy and the Iberian peninsula; as well as problems of European integration, the Common Market and Europe's role in the world community.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

POL 308 Urban Politics

This is a comparative course dealing with Urban Politics in Canada, Britain and the United States. It will deal with governmental structure, political issues, and the political process in urban areas. A major element of the course will be a research paper on some aspect of politics in the metropolitan Toronto area. Students are encouraged to read H. Kaplan, *Regional City* and E.C. Banfield & J.Q. Wilson, *City Politics* as an introduction to the course.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

POL 320 Modern Political Thought

This course examines the development of political thought in the period beginning after the French Revolution and continuing through the nineteenth century, with special attention to the implications of this development for political thought in the twentieth century. Both democratic and anti-democratic tendencies are considered.

Prerequisite: POL 101/200

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

POL 322 Introduction to Public Administration

This course is intended to introduce students to the literature of public administration and to some of the main issues of the present and recent past in Canada (and to a limited extent in Britain and other countries). In other countries primary emphasis will be on policies or features that have influenced Canadian practice.

Exclusion: COM 301

Prerequisite: POL 100

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

POL 329 Marxism

A study of the major texts of Marx and Engels and secondarily those of Lenin and Mao. Greater emphasis will be placed on the philosophy of Marxism and the general problems of its practical application than on the history of the communist movement in particular countries.

Prerequisite: POL 200

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

COURSE OPEN TO FOURTH-YEAR STUDENTS

POL 412 The Canadian Political System

This course focuses on the making of public policy and the political process in Canada. It includes an analysis of pressure groups, parties, public opinion, electoral behaviour, mass media, duality of Canadian culture, regionalism, and the federal system.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Portuguese

Offered by the Department of Italian and Hispanic Studies

Portuguese, the language of Portugal and of Brazil, is spoken by more than one hundred million people on four continents: Europe, Africa, Asia and America. Twenty per cent of all residents of the Western Hemisphere are Brazilians, who attest to the truth that one out of every five Americans – North, Central, South – speaks Portuguese as his native language. Portugal's literature began on a high note in the twelfth century, and her discoveries in the Renaissance led her to all corners of the globe. In the last two decades Portugal has given to Canada many thousands of new citizens; and Brazil is attracting the attention of Canadians through her vast potential as a land of culture, of natural resources, and of industry.

It is with Brazil that the Portuguese studies at the University of Toronto are particularly concerned, although the outstanding European heritage is by no means forgotten. Through small classroom and language laboratory groups, the introductory course (PRT 100) provides basic instruction in grammar, conversation, reading and writing. The second course (PRT 220) is an introduction to the wealth of Brazilian literature: poetry, prose and drama. In addition, a non-credit rapid-reading course in Portuguese (PRT 195Z) is offered without prerequisite to staff and students in any division of the University.

Portuguese 100 and 220 serve the programme in Latin American Studies and any student, specializing or not, who may wish to begin a study of a new language.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

PRT 100 **Introductory Portuguese**

Intensive audio-lingual drill. Special emphasis on comprehension and oral practice. Instruction both in the classroom and the language laboratory. Reading of selected modern works. (May not be taken by students who, in the judgement of the Department, already have a sufficient knowledge of Portuguese to qualify them for entry into PRT 220.)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Psychology

Chairman of Department/Professor G.E. Macdonald

Undergraduate Secretary/Professor A.N. Doob

Enquiries/Sidney Smith Hall, Room 4044 (928–3407 for appointment)

Psychology is that branch of science which seeks to understand the behaviour of organisms. Psychology accepts the individual organism rather

than the collective or group as the unit of analysis. The courses in this Department are designed to acquaint students with the fundamental principles of Psychology, its research findings and methodologies. Experimentation, laboratory work, and the use of statistical methods in assessing data are fundamental tools of the psychologist. Applied Psychology is not a part of the undergraduate curriculum in Arts and Science.

Students who are interested in Psychology as a career must be prepared for three to five years of graduate study. Persons who hold a PhD in Psychology find employment in universities, research institutes, and large corporations, or may be self-employed consultants. The BSc with concentration in Psychology, is not a professional qualification. A student who has included a large amount of laboratory work in his programme may find employment as a research technician in a university or research institute laboratory, or he may be employed in a technical assistant capacity in business or industry, particularly if he combines laboratory skills with a knowledge of computer techniques. The BSc may also lead into programmes of study at The College of Education. Undergraduate courses in Psychology may be of value to students planning various professional careers, such as in medicine, engineering, law, nursing, physical education, etc. In all cases, however, the graduate with a BSc must expect on-the-job training, graduate study, or both.

The New Programme allows each student to determine his own degree of specialization between or within disciplines. In Psychology it is possible to plan a diversified programme of courses at the 200-level which serve to delineate the main lines of current research and its historical antecedents in various areas, e.g., learning, motivation, perception, personality, cognition, and physiological, abnormal, social, and developmental psychology. At the other extreme, it is possible to pursue in some depth a limited number of topics by selecting two to four appropriate half-courses at the 200-level which lead into continuation courses at the 300- and/or 400-level. Most students will probably wish to plan a programme somewhere between these two extremes.

The student who is interested in studying Psychology as part of his general education or as supporting his training in another profession may find that courses at the 100- and 200-level supply material in sufficient depth to satisfy his interest. Wherever he wishes, however, he may follow a particular interest through selection of specific continuation courses for which he has prerequisites. Students who wish to enrol in continuation (300- and 400-level) courses should take note of prerequisite requirements when planning their Second Year programme.

It is important to note that 200-level courses may quite appropriately be included in the programme of a third- or fourth-year student. This designation merely indicates that the course does not demand preparation beyond the introductory course. Courses with 300- and 400-level designations are intended for the student who wishes to build upon the material covered in 200-level courses – they are therefore not available until the student has

reached his third or fourth year of study, respectively. Note that requirements for both Three-Year and Four-Year degrees can be met by a selection of 200-level courses.

There is no prescribed specialist programme in Psychology. However, the student aiming for a career in Psychology, and who expects to make application for graduate study at this or another university at a later date, should take special care in his selection of undergraduate courses. At the outset, it should be understood that application for graduate study in Psychology is highly competitive. Unless a student has maintained at least a high 'B' average throughout his undergraduate career, he has very little chance of acceptance into graduate programmes in any field of Psychology. All graduate schools normally require that statistics and laboratory work be included in the undergraduate programme before an applicant will receive consideration. This requirement can be met by STA 222/242/252 and one of PSY 320/321/322. Applications for graduate study must also be accompanied by letters of recommendation (usually two) from members of staff at the undergraduate institution. A staff member can most readily write informative letters about students who have done some research with him and the opportunity for this is ordinarily proved by PSY 400 (Research Thesis). For this reason, as well as for the experience which it provides, this course is of particular value to prospective graduate students. One or more seminars at the 400-level will also provide important pre-graduate experience. The prospective graduate student should also aim for a well-rounded undergraduate programme, i.e., he should not follow a narrow specialization in the area which is of most immediate interest, but rather should become acquainted with problems and methods in a variety of areas, dealing with both human and animal behaviour from diverse approaches, e.g., physiological, comparative, developmental, etc. The areas of learning and perception in particular have contributed much to both the methodology and theoretical formulations of psychologists concerned with a variety of problems, including aspects of social psychology, personality, and abnormal behaviour. The use of mathematical tools in psychological theorizing is becoming increasingly important, as is an appreciation of the computer as a research tool in simulation, control of experiments, and analysis of data. Courses offered in the Department, e.g., PSY 315S & 329S, and others offered by the Departments of Mathematics and Computer Science are recommended to the prospective career psychologist. An appreciation of the history of Psychology is also of importance in understanding how contemporary approaches have emerged and in gaining some perspective on current 'issues.' Attention is therefore directed to PSY 327F and 341S. The suitability of other Psychology courses in the individual case is best determined by consultation with an appropriate member of the staff. Courses offered by other departments, such as Physiology, Zoology, Physics, Biochemistry, Sociology, Philosophy, Geography, and Anthropology, as well as Mathematics and Computer Science support the study of Psychology.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

PSY 100 Introductory Psychology

The course is designed to familiarize students with important concepts in various areas of contemporary Psychology. The ways in which psychologists formulate questions and attempt to answer them will receive particular emphasis. This course or PSY 105 is prerequisite to 200-level courses in Psychology.

Exclusion: PSY 105

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

PSY 202F Introduction to Development

The developmental approach to the study of behaviour with reference to sensory-motor skills, cognition, socialization, personality, and emotional behaviour.

Exclusion: PSY 200/202 in 1968–69 or before; PSY 301F/S in 1969–70 or 1970–71.

Prerequisite: PSY 100/105

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

PSY 202S Introduction to Development

The same as PSY 202F.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 202Y Introduction to Development

The same as PSY 202F.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PSY 203F Introduction to Social Psychology

A survey of contemporary areas of research in social psychology. Areas to be considered include social perception, attitudes, interpersonal relations, group processes, and ethnic attitudes.

Prerequisite: PSY 100/105

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 203S Introduction to Social Psychology

The same as PSY 203F.

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

PSY 203Y Introduction to Social Psychology

The same as PSY 203F.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PSY 204F Introduction to Personality

A survey of theory and research in personality.

Prerequisite: PSY 100/105

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 204S Introduction to Personality

The same as PSY 204F.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

PSY 204Y Introduction to Personality

The same as PSY 204F.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PSY 206S Introduction to Learning

This course provides a foundation to the area of conditioning and learning. It will focus on classical conditioning and instrumental learning and will be concerned with the problem of reinforcement, the phenomena of extinction, generalization, and discrimination. The literature on these topics contains many experiments which employ animal subjects.

Exclusion: PSY 220F/S; PSY 313S in 1969–70 or 1970–71.

Prerequisite: PSY 100/105

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

PSY 207F Introduction to Learning

Various aspects of human learning behaviour are introduced. These range from simple conditioning to more complex types of learning such as problem solving and concept learning. Special emphasis will be placed on verbal learning and memory.

Prerequisite: PSY 100/105

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

PSY 207Y Introduction to Learning

The same as PSY 207F.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PSY 209F Introduction to Physiological Psychology

The course will emphasize the relation of physiological and neurological information to the study of behaviour. Topics covered will be elements of neurophysiology, neuroanatomy, and research methodology in physiological psychology with a view to introducing the application of knowledge in these areas to our understanding of the behaviour of organisms.

Prerequisite: PSY 100/105

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 209Y Introduction to Physiological Psychology

The same as PSY 209F.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PSY 211F Viewpoints in Motivation

Examination of concepts and approaches in motivation from an historical perspective.

Prerequisite: PSY 100/105

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 220F Conditioning and Behavioural Control

The use of 'operant conditioning' both as a general approach to the study of behaviour as well as an experimental and analytical tool for considering a broad range of problems in human and animal behaviour. The concept of 'controlling' behaviour will receive special attention.

Exclusion: PSY 206F/S; PSY 313S in 1969–70 or 1970–71.

Prerequisite: PSY 100/105

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 220S Conditioning and Behavioural Control

The same as PSY 220F.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 220Y Conditioning and Behavioural Control

The same as PSY 220F.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PSY 221F Introduction to Abnormal Psychology

A survey of theories and research in psycho-pathology and psycho-therapy.

Exclusion: PSY 330F/S.

Prerequisite: PSY 100/105

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

PSY 221S Introduction to Abnormal Psychology

The same as PSY 221F.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 223F Perception

The identifying and localizing of objects and events in the environment; the perceiver as a seeker and user of information in the stimulus array; perceptual constancies, perception of space, movement, and form. Demonstration and experiments.

Exclusion: PSY 314S in 1969–70 or 1970–71

Prerequisite: PSY 100/105

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 224F Psychology of Language

An examination of modern psychological and linguistic theories of language behaviour and of experiments and observational studies based on these theories.

Exclusion: PSY 305F in 1970–71; LIN 201

Prerequisite: PSY 100/105 or JAL 100

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

PSY 230F Interpretation & Evaluation of Psychological Data

The nature and description of psychological evidence; the interpretation of inferential statistics; the scientific literature in Psychology. Students planning a professional career and/or graduate work in Psychology are advised to take STA 222/232/252 rather than this course; however,

this course will satisfy prerequisite requirements for all 300-level courses except PSY 307S, PSY 315F, PSY 329S, 320, 321, 322, 323. It is not required for PSY 327F.

Exclusion: PSY 201S, STA 222/232/242/252, ECO 220, GGR 270, GLG 221Y, SOC 201.

Prerequisite: PSY 100/105

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 230S Interpretation & Evaluation of Psychological Data

The same as PSY 230F.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

PSY 240S General Experimental: Psychology

A laboratory course, following PSY 230F, intended for the student who wishes to become more familiar with problems and methods in data collection. Demonstrations and experiments from a variety of areas in experimental psychology. (Students planning a professional career and/or graduate work in Psychology should take one or more of PSY 320, 321, 322 and 323 rather than this course.)

Exclusion: PSY 210 (1968–69) PSY 334 (1968–69 or 1969–70)

Prerequisite: PSY 230F/PSY (200F & 201S)/STA 222/223/242/252

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

PSY 241S Physiological Psychology: Physiology of Learning

Role of neural and biochemical processes affecting learning.

Exclusion: PSY 316F/S in 1969–70 or 1970–71

Prerequisite: PSY 209F

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

PSY 243S Methods in Perception

General methodological problems in the study of perception and sensory processes; the description of stimuli, some basic sensory processes such as detection and discrimination. Demonstrations and experiments.

Exclusions: PSY 208S in 1969–70 or 1970–71.

Prerequisite: PSY 223F

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

PSY 301S Developmental Psychology: Cognitive and Sensory Development

Learning, problem-solving, thinking, concept formation, with strong accent on Piaget's theory of cognitive development throughout the age span.

Exclusion: PSY 200 or 202 in 1968–69 or before.

Prerequisite: PSY 230F/201S/STA 222/232/242/252 and PSY 202F and PSY 206F/207S/313S/220S

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 301Y Developmental Psychology: Cognitive and Sensory Development

The same as PSY 301S.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PSY 302S Social Psychology: Attitudes

Intensive study of social attitudes and opinions – their development, description and measurement, modification, and organization.

Exclusion: PSY 304F/S or PSY 306S

Prerequisite: PSY 230F/201S/STA 222/232/242/252 and PSY 203F/S and two additional half-courses at the 200-level.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

PSY 304S Social Psychology: Inter-personal Behaviour

Detailed analysis of some of the determinants and consequences of various forms of social interaction; conformity and social influence, social comparison, affiliation.

Exclusion: PSY 302S or PSY 306S, or PSY 204, 304, 340 or 360 in 1968–69 or before.

Prerequisites: PSY 203F and PSY 201S/230F/STA 222/232/242/252 and two additional half-courses at the 200-level.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 304Y Social Psychology: Inter-personal Behaviour

The same as PSY 304S.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PSY 306S Social Psychology: The Individual and the Social System

Detailed examination of psychological consequences of social structure: social norms, social roles, stratification, groups and organizations.

Exclusion: PSY 302S or PSY 304F/S

Prerequisite: PSY 230F/201S/STA 222/232/242/252 and PSY 203F/S and two additional half-courses at the 200-level.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 307S Personality Assessment

Analysis of concepts and methods for the measurement of personality, including statistical analysis of reliability and validity; norms, observational methods, structured tests, interview, projective techniques, nonreactive measures. Ethical problems in assessment. NOT a course in test administration.

Prerequisite: PSY 201S/STA 222/232/242/252 and PSY 204F/S

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 307Y Personality Assessment

The same as PSY 307S.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PSY 308S Introduction to Verbal Learning

Major problems, methods, principles, and concepts in research on verbal learning and forgetting.

Prerequisite: PSY 207S and PSY 230F/201S/STA 222/232/242/252

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 309S Organization and Memory

Experimental facts and theoretical speculations concerning storage and retrieval of mnemonic information in humans.

Prerequisite: PSY 308F

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 310S Short-term Memory

A study of the recent methodological, empirical, and theoretical advances in the field of human short-term memory.

Prerequisite: PSY 308F

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

PSY 311S Discrimination Learning

Focus is on the current status of the various theories relevant to how organisms came to respond differentially to their stimulating environment. Most of the empirical work examined will deal with lower organisms.

Prerequisite: PSY 206F/207S/313S/220S and PSY 230F/201S/STA 232/242/252

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

PSY 315F Introduction to Mathematical Psychology

A selection of areas in mathematical psychology to introduce the student to the application of mathematical tools and concepts in psychological theorizing, e.g. theories of scaling and measurement, stochastic theories of learning, applications of information theory, application of game-theoretical concepts.

Prerequisite: PSY 201S/STA 222/232/242/252 and MAT 110/130/134/135/139

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

PSY 319F Physiological Psychology: Physiology of Sensory-Motor Behaviour

Physiological bases of sensory-perceptual and motor behaviour. Importance of developmental processes on sensory-motor coordination.

Prerequisite: PSY 209F and PSY 223F and PSY 230F/201S/STA 222/232/242/252

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 320 Learning Laboratory

A series of three experimental projects to be conducted under the supervision of the instructor(s), at least one to involve the use of human subjects and at least one to involve the use of animal subjects. Each project includes the design of an experiment, data collection and analysis, and a written report.

Prerequisite: PSY 206F/220S/313S and PSY 207S and PSY 201S/STA 222/232/242/252

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 321 Sensation and Perception Laboratory

A series of three or four experimental projects to be conducted under supervision of the instructor. Each project will include the design of an experiment, data collection, and a written report. Subject matter for the projects can be anything within the general area of perception and is limited only by the equipment available or the student's ingenuity in constructing or arranging such equipment.

Prerequisites: PSY 243S/208S and STA 222/232/242/252/PSY 201S

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 322 Physiological Psychology Laboratory

A series of three experimental projects in the general area of Physiological Psychology. Each project includes the design of an experiment, data collection and analysis, and a written report.

Prerequisite: PSY 206F/313S/220S and PSY 241S/242S and PSY 201S/STA 222/232/242/252

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

PSY 324F Animal Behaviour

Comparison of psychological and ethological approaches to the problems of the structure, causation, ontogeny and phylogeny of behaviour. Offered in alternate years.

Prerequisite: PSY 206F/220S and PSY 209F/PSY 223F and PSY 230F/201S/STA 222/232/242/252

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

PSY 326S Comparative Psychology: Man as a Vertebrate

Man's psychology compared with that of other selected vertebrate species. Preliminary considerations: psychologist's approach to animal behaviour, precautions in attempting species comparisons, biological characteristics of the species, evolutionary status. Topics for species comparisons include sensation, perception, motivation, learning, and cognition.

Prerequisite: PSY 206F/207S/220S and PSY 230F/201S/STA 222/232/242/252

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

PSY 329S Computer Applications to Psychology

A lecture course on the uses and limitations of computers in psychological research with emphasis on simulation and real time computers. Strongly recommended to students planning a career in experimental psychology.

Prerequisite: PSY 201S/STA 222/232/242/252 and a knowledge of Fortran

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

PSY 330F Abnormal Psychology

An examination of theories and research in psycho-therapy and psychopathology.

Exclusion: PSY 221F/S.

Prerequisite: PSY 230F/201S/STA 222/232/242/252 and 3 half courses in Psychology at the 200 level

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 330S Abnormal Psychology

The same as PSY 330F.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

PSY 340F Developmental Psychology: Social and Personality Development

Social attachment, aggression, morality, identification, achievement.

Exclusion: PSY 202F/S in 1969–70 or 1970–71

Prerequisite: PSY 202F/S in 1971–72 and PSY 206F/207S/220S and PSY 230F/201S/STA 222/232/242/252

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 340S Developmental Psychology: Social and Personality Development

The same as PSY 340F.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

Religious Studies

Chairman of Combined Departments/Professor J.C. Meagher

Secretary/Professor A.T. Davies

Chairmen of College Departments:

Victoria College/Professor D.V. Wade

Trinity College/Professor G.A.B. Watson

St. Michael's College/Professor A.G. Gibson

Enquiries/Victoria College, Room 18A (928–3926 for appointment)

Religious Studies, as an academic discipline, is based upon a broad concept of the fundamental significance of religion in the life of the individual person and of society. The intention of the Combined Departments is to provide students with an opportunity to deepen their understanding of man and his institutions by exploring in various ways the ultimate questions and convictions which have affected the foundations of his life throughout history.

The breadth of the concept of religion which is assumed in the academic approach to it is reflected in the diversity of perspectives and methods involved in the courses offered by the Combined Departments, as well as in those recommended from other disciplines. Furthermore, students participating in the study of religion are encouraged to bring to that study the instruments of critical and sensitive enquiry which they have developed in other areas. Through the perspectives and methods of various disciplines, separately and in combination, fundamental assumptions and questions pertaining to personal and social values and beliefs, which are too frequently

excluded from other forms of enquiry, are exposed and systematically probed in an intellectual atmosphere of freedom and thoroughness. Throughout history, man has expressed his profoundest convictions, questions, aspirations, and fears in many ways. His art, philosophy, conduct, social institutions, even his theories about the physical universe, have conveyed and illuminated his measure of himself and of the world in which he lives. From time to time these forms of expression coalesce within a particular pattern and tradition which we may identify as a 'great' or a 'world' religion. But along with such religions – both within them as well as outside them – are the individuals, each with his own personal convictions, values and interpretations of experience and of the symbols by which he represents to himself the ultimate concerns of life. The examination of all of this constitutes the academic enterprise which we title Religious Studies. To expand human awareness in areas which affect directly the foundations and quality of life is not easy, but in our age it is vitally important. To prepare for life, in addition to preparing for a career or for graduate study, is, among other things, to learn how to ask ultimate questions and work toward solutions. The Combined Departments for Religious Studies are committed to the encouraging of this process and to the critical and creative extension of it into areas of individual or corporate blindness.

A careful reading of course descriptions in Religious Studies will suggest to the student with more than one area of interest a number of ways in which a particular programme may be constructed, combining selections from Religious Studies with offerings from other departments. For example, courses may be combined with ones in Philosophy or Psychology or Sociology or Political Science to create an investigation in the psychology of religious expression, the philosophical analysis of religious language, the sociological analysis of religious institutions, the political impact of religious institutions and belief, religious motivations in human behaviour, etc. Similarly, religion and the arts can be creatively fashioned as an area of study by a selection of courses in Religion, Fine Art, Music and the literatures. By combining courses in Religious Studies, Near Eastern Studies, East Asian Studies and Islamic Studies, a variety of programmes in religious and cultural beliefs may be planned; the focus here could be achieved through language study or through works in translation. There is every opportunity to penetrate the religious traditions of the west in depth as well as to engage in the comparative study of varied religious traditions east and west.

Students who wish to continue an interest or a concentration in Religious Studies into graduate schools of religion will find an increasingly wide opportunity to do so, and may think of their undergraduate study as preparation for this. Needless to say, there are also opportunities to use such a preparation as a basis for entrance into varied professional schools; increasingly such schools look not at the type of discipline in which a student has been "trained" but at the depth and breadth of his undergraduate education, as such. The same can be said of many employers.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

REL 110 Religion and the Human Condition

The nature of religion and its impact on personal and public life. Lectures and discussions, examining the religious quest as it is expressed in the arts, in individual and societal life-styles and philosophies, in the struggle to ask and answer the perennial questions about the human condition. Concentrated research in tutorial groups on one or more of such topics, leading to group presentations, as well as individual research.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

REL 160 Basic Ideas and Practices of the Jewish Religion

The course deals with the central themes of Classical Judaism, i.e., biblical-pharisaic thought and devotional life. Central affirmations such as covenant, Torah, God and Man will be explored. The holidays and observances will be analyzed. Some time will be devoted to contemporary Jewish denominations.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

REL 203 Religion and Imaginative Literature

Analysis and interpretation of different kinds of religious insights in great authors; developments of responsible approaches to the seriousness of the concerns expressed in various kinds of literature: Dostoevsky, Tolstoy, Joyce, Eliot, Mauriac, Bernanos, Camus, Miller, Salinger, Updike, St. Exupery.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

REL 220 Major Religious Traditions, East and West

A study of the ideas, attitudes, practices, and contemporary situation of the Judaic, Christian, Muslim, Hindu, Buddhist, Confucian, Taoist, and Shinto faiths.

Exclusion: REL 100

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

REL 304F Religion and Culture in Asia

A contemporary study. Religion as a cultural determinant in the Far East, Southeast Asia and India. Cultural facets of religious and ethical values and themes. Religion, especially Buddhism, and the encounter with Communism in Asia. The role of Asian religion in the quest for peace, international affairs, East-West understanding and world community.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

REL 306 Protestant and Catholic Theologies in Convergence

An investigation of the origins of the Protestant-Catholic separation and a demonstration of the growing areas of agreement between Protestant and Catholic theologians in the ecumenical dialogue. Special attention to the contributions of K. Rahner, H. Kung, E. Kasemann, and G. Lindbeck.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

REL 332S Comparative Religious Ethics

A study of the ethical teachings and attitudes of the great religious traditions. The purpose of the course is not to offer a detailed point by point comparison of similarities and differences in the ethical positions associated with the great religions but rather to study basic similarities and radical differences, and to ask: How do the axioms and presuppositions of a given religion determine the ethics associated with it?

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

RUSSIAN 'See 'Slavic Languages and Literatures'

Sanskrit and Indian Studies

Chairman of Department/Professor A.K. Warder

Undergraduate Secretary/Mr. C.D.C. Priestley

Enquiries/280 Huron Street, Room 333 (928-7256 for appointment)

India, ancient and modern, attracts interest in the West because it is unknown and different. It is a society, a civilisation, whose standards and values are different, whose religious background especially does not make the assumptions and impose the inhibitions long dominant in Western culture. Every civilisation is an experiment in life and also a control on other experiments. India's experiment has been a very long one and it has also left a long record depicting and discussing life: what is the aim of life, how should we enjoy it, what is happiness? To live in the modern world, we suggest it is a great advantage to have a knowledge of two civilisations, one's own and another, and we believe India will be found the most rewarding other.

Of our first year courses, one (SIS 100) offers a visual experience of modern India through slides, films and dancing as well as a general introduction to Indian civilisation. When we seek to understand this society, its art and its ideas, we have to trace the source from which the ideas spring. Wherever we start in India, if we trace the sources of what we find which is distinctively Indian, we discover them in Sanskrit literature, for Sanskrit has for thousands of years been the common language of the whole of India. India's modern quest for a national image has increasingly taken her people to the sources deep in the past yet ever young and creative. Even while assimilating foreign technology, the people of India have wanted to reassert their own ideals and to rediscover their own heritage. Because the heart of the Indian tradition is to be found in Sanskrit literature, the Department of Sanskrit and Indian Studies has made Sanskrit language and literature the central core of its programmes. The four year sequence begins with SIS 110. There is also a four year sequence on Buddhism, which is a special interest of this Department. In the West, Indian culture is perhaps most visible in the forms of Buddhism, Krishna worship, Yoga, curry, music and dancing. All these

derive from the same Sanskrit-based tradition and flow outwards from classic books written in Sanskrit (in the case of Buddhism also Pali, a dialect closely related to it). The courses in this Department are designed to make all aspects of the tradition accessible through their classic expositions. Indian theatre is unfamiliar in the West only because of the difficulty of bringing it here, but along with the other literature (poetry, novels, short stories) and Indian literary criticism it forms the richest part of the whole tradition, in which life is most fully reflected. The Department offers additional courses which, in conjunction with the central Sanskrit sequence, provide a programme in Indian Literature. For students interested in Indian Philosophy or Indian History, parallel sequences are offered to make possible programmes in either of these. It is feasible to combine such a sequence in this Department with one in another department, for example the Department of Philosophy, to produce a double programme.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

SIS 100 **Introduction to India**

A course dealing with the various facets of Indian civilization. India's traditions in art, religion, philosophy and literature will be dealt with, along with a preview of contemporary Indian life and institutions. Specialists from other departments will participate in this course as guest lecturers.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SIS 110 **Spoken Sanskrit**

An introduction to the language of traditional Indian civilization.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SIS 160 **Introduction to Buddhism**

The Buddha and his teaching and how this has evolved into the Theravāda, Mahāyāna and other traditions of Buddhist thought. The course aims to elucidate the main doctrines common to all forms of Buddhism, such as transmigration, impermanence, non-soul, the nature of consciousness, the nature of unhappiness, meditation and Nirvana, and also to examine Buddhist social teaching.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SIS 226 **Indian Literature in Translation**

An historical survey of Indian literature, with reading of recommended translations of characteristic dramas, fiction, poetry and criticism.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SIS 260 **Buddhist Philosophy**

The special doctrines of the early schools and the main philosophies of the Mahāyāna: analysis of phenomena in the Abhidharma, the Mādhyamika critique of being and non-being, the mind-only philosophy of the Vijñānavāda, and the epistemology and logic of Dignāga and his followers.
 Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Slavic Languages and Literatures

Chairman of Department/Professor C.H. Bedford

Undergraduate Secretary/Professor D. Struk

Enquiries/21 Sussex Avenue, Room 109 (928–3418 for appointment)

The Department of Slavic Languages and Literatures offers an extensive range of courses in Russian language and literature, four-year sequences in Czech (and Slovak), Polish, Serbo-Croatian and Ukrainian languages and literatures, and some advanced courses in Slavic linguistics. Within this range there are courses suitable for inclusion in a wide variety of programmes of study, whether or not the student has studied Russian in Grade XIII. Some students may specialize intensively in Russian language and literature. Others may simply wish to gain a working knowledge of Russian to aid their reading of important material in another field, as for example, science or social science. The other Slavic languages and literatures may also be included in any programme, and, in particular, even in a programme that does not continue Russian. Language study in the Department emphasizes skills in using literary materials, and it also employs oral methods, combining small instructional groups with some laboratory or conversational practice.

Students who have not studied Russian in secondary school should not consider themselves at a disadvantage when considering specialization in the Russian or Slavic field. It is still not common for secondary schools to offer Russian, and the Toronto programme in language is by itself capable of providing a very good foundation for specialized work.

Students who have studied Russian in secondary school and would like to continue it should take SLA 121, which will prepare the student for entering SLA 320 in his second year. If a student is inclined to begin a specialization in Russian or Slavic at the University, he should include SLA 100 (first-year Russian) in the first-year programme. Also recommended for first-year students with an interest in the Russian field, whether or not they are studying Russian language, is the course 'Masterworks in Russian Literature in Translation' (SLA 211), which is designed to serve as an introduction to some great works of Russian literature and to some significant questions of Russian intellectual and social development.

First-year students should also note that they may enrol for the Department's courses SLA 205, 206, 207, 208 (elementary Czech, Polish, Serbo-Croatian, Ukrainian), and also the courses SLA 215, 216, 217, 218 (Czech and Slovak, Polish, Serbo-Croatian and Ukrainian literature and culture). Not all of these courses are offered in every year, so students planning to take them should consult the 'Schedule' included in the Department's list of courses, and make their plans accordingly.

Students with such a language proficiency in Ukrainian as to be exempted from Advanced Ukrainian (SLA 308) may petition to take in their First Year the Fourth Year literature course in Ukrainian literature (SLA 408, SLA 418, or SLA 419). Only one will be offered each year thus allowing a student to choose a Ukrainian literature course as an option for every year of study at the University.

The Department offers two Suggested Programmes, Russian Language and Literature and Slavic Languages and Literatures. The first requires seven 'core' courses in Russian language and literature, and three additional courses chosen from offerings in Russian literature or Slavic linguistics. The second requires eleven courses in the Department, including the seven 'core' courses in Russian, plus three courses in another Slavic language and literature (Czech, Polish, Serbo-Croatian or Ukrainian). Both programmes include the possibility of enrolment in fourth year seminar-type courses which will allow qualified students to take up specialized subjects and to carry out individual research projects.

Students enrolled in these programmes are free to follow their own interests in choosing their remaining courses. Some may elect to do further work in Slavic Languages and Literatures, while others will range far afield. Those emphasizing Slavic linguistics will profit from courses offered by the Departments of Anthropology and Linguistics, while the student whose primary concern is literature may be drawn to many other studies in English or other literature, in philosophy, psychology, the history of music or of art, in Russian and East European history, in Marxism or political sociology.

Students who propose to study Russian and a second, non-Slavic language with a view to teaching in the secondary schools should enrol in a programme representing specialization in Modern Languages and Literatures from their Second Year. Qualified students in Modern Languages and Literatures have the opportunity to spend their third undergraduate year abroad at a university or universities recommended by the appropriate departments.

The student whose interest in the Russian or East European world is political, historical or sociological can specialize in Political Science, History or Sociology and at the same time take language courses, and perhaps selected courses in literature, in this Department. Students planning to specialize in Economics, for example, or in Psychology, Mathematics or any number of other fields, who have a special interest in the Russian or East European area, will find an advanced knowledge of Russian or of another Slavic language an important intellectual and professional asset. In recent times

many fields of research have included serious and extensive work in the Russian and East European area and in Russian and Asian studies. In academic fields like History, Political Science, Economics, Sociology, professional careers can now be devoted to the study of some part of the Russian and East European area. The growing importance of Eastern Europe in contemporary affairs has not only given great impetus to the growth of Slavic Studies in Western universities, but has the effect of making academic work in these areas especially lively and relevant. The study of literature, too, is invigorated by such a sense of contemporary relevance. Students with literary interests, specializing in English or another modern language, will find profit in the study of Russian or another Slavic literature. Such students may also find attractive the opportunity of taking some important literary courses in Russian or other Slavic literatures without needing a knowledge of any Slavic language.

Graduate programmes in the Russian and Slavic areas have expanded widely in recent years, so that many opportunities now exist for advanced study in North America and Europe. Many professional opportunities are now offered, specially in the academic world and in government service. There is certain to be a continuing need for specialists in these areas of Eastern Europe, to which not enough attention has been paid in the past, and which are today assuming a primary role in the world's intellectual, cultural, political and scientific affairs.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

SLA 100 **First Year Russian**

Fundamentals of Russian grammar. Practice in aural comprehension, speaking, reading and writing. Offered only to students with little or no knowledge of the language. Other students please see course SLA 121.

Exclusion: SLA 121

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

SLA 208 **Elementary Ukrainian**

Grammar, composition; emphasis on reading knowledge. Voluntary language laboratory for those wishing practice in spoken Ukrainian. Offered only to students with little or no knowledge of the language. (Not offered 1975–76, 1979–80)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SLA 308 **Advanced Ukrainian**

A review of morphology and a study of syntax. Short compositions based on selected literary and critical texts. Voluntary language laboratory for those wishing practice in spoken Ukrainian. (Not offered 1972–73, 1976–77.)

Prerequisite: SLA 208

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

SLA 220 Second Year Russian

Study of more difficult areas of morphology; syntax: the simple sentence. Reading of literary selections and works of non-fiction. Oral practice. Composition and translation; conversation based on reading and topics of current interest.

Exclusion: SLA 121/221

Prerequisite: SLA 100

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

SLA 240 The Nineteenth Century Russian Novel

Reading in Russian of major works by Pushkin, Gogol, Turgenev, Goncharov, Dostoevsky, Tolstoy and others. The development of the novel as a literary form: structural and thematic evolution; native and foreign influences – Romanticism and Realism. Required for specialists in Slavic Languages and Literatures.

Exclusion: SLA 210

Co-requisite: SLA 220 or 320

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

SLA 320 Third Year Russian

Continued study of grammar: syntax and especially difficult areas of morphology. Composition, translation and stylistic analysis of selected texts. Oral practice in class and in laboratory based on assigned readings. Extensive reading programme.

Exclusion: SLA 321

Prerequisite: SLA 220, SLA 121

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

SLA 340 The Twentieth Century Russian Novel

Major trends in pre- and post-revolutionary Russian literature. Particular attention will be paid to Gorky, Kuprin, Bunin, Andreev, Merezhkovsky, Bely and Sologub in the first term; and to Zamyatin, Babel, Olesha, Leonov, Fadeev, Pasternak and Solzhenitsyn in the second term. Readings in the original and in translation. Required for Specialists in Russian and Slavic.

Exclusion: SLA 310

Co-requisite: SLA 320/321

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

Sociology

Chairman of Department/ Professor P.J. Giffen

Supervisor of Studies/ Professor D. Magill

Academic Advisers/ Professor J. Joyner (First Year)

Professor J. Wayne (First Year)

Professor R. Beals (Second Year)

Professor J. Simpson (Second Year)

Professor A. Smith (Third and Fourth Year)

Enquiries/ Borden Building, Room 220 (928-8718 for appointment)

Sociology seeks an understanding of the determinants and the patterns of human interaction. In contrast with Psychology, which deals mainly with the investigation of the behavior of individuals, Sociology examines the web of social relationships among people. In contrast with Social Work, which is concerned with the application of findings of the Social Sciences through policy measures, Sociology seeks primarily to explain.

Of course, explanation has many links with practice. In so far as Sociology consists of a body of tested theory and reliable facts, it can contribute to an appreciation of the dilemmas confronting human beings in their effort to achieve and maintain the kind of society in which they would prefer to live. In a world where traditional explanations often prove unreliable, both as bases for understanding and as guides for action, Sociology constitutes a valuable source of knowledge. In turn, Sociology is influenced by current debates and the environment in which they occur. Many different factors affect the ways in which Sociologists identify problems and devise concepts and theories for their explanation.

Through the use of a variety of methods, Sociology asks how our way of thinking, feeling, and acting are shaped by our social experience, how they came to be what they are, and how they are changed. The scope of sociological investigation ranges from the analysis of the behavior of small groups to the study and the comparison of the development, functioning, and change of large social systems. It is concerned with Canadian society as well as with societies in such areas as Africa, Asia, or Latin America. Its subjects cover the sociologies of politics, religion, the family, mass media, art, urban life, crime, medicine, occupations, deviance, education, racial and ethnic groups, and so on. All are specialized parts of the study of human behavior in its social context.

Knowledge of Sociology is helpful in pursuing a career in government, industry, education, the professions, journalism, politics, and, in fact, any career in which one must deal with other persons as members of human groups. A professional career in Sociology, however, requires advanced training beyond the undergraduate level. One may also wish to study Sociology as a means of going beyond the limiting horizons of personal

experience in the narrow circle of your own family, social class, race, and nation.

The Department of Sociology offers a specialist programme in Sociology. Requirements for this programme are found elsewhere in this Calendar under the heading "Suggested Programmes of Study". Although there is no requirement that a student entering the specialist programme in Sociology must focus upon a particular area of interest, the Department is prepared to recommend, in consultation with the student, programmes which emphasize Canadian society, comparative social structure, interpersonal relations, political sociology, social and economic organization, urban sociology, or some other combination of courses. Students who wish to attain a specialist degree in Sociology should enrol in the Department at the beginning of their Third Year.

Many of the advanced courses in Sociology have prerequisites, especially basic theory and the logic and methods of research. Some courses require competence in statistics. For these reasons, any student considering advanced courses is urged to include SOC 200 or SOC 201 and SOC 203 or SOC 313 in his programme of studies. Some of these courses are required for the four-year specialist programme. Students planning graduate studies in Sociology are particularly advised to take the courses.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

Note: SOC 101 is an introductory course and is strongly recommended as preparation for all other SOC courses. Instructors in subsequent courses will assume the student has the background knowledge provided by an introductory sociology course.

SOC 101 **Introduction to Sociology**

The basic principles and methods of sociology as applied to the study of human societies, focusing on the social sources of differing values and conceptions of reality, and the influence of these on such phenomena as the behaviour of individuals, patterns of relations among groups, and social stability and change.

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

SOC 201 **Social Statistics**

An introduction to statistical procedures basic to contemporary sociological research: summary descriptive techniques, parameter estimates, parametric and non-parametric tests of association, and parametric and non-parametric tests of significant difference. The utility of techniques within each of the above major divisions is discussed with reference to the unique character of social data.

Exclusion: Statistics courses

Suggested prior course: SOC 101 (SOC 101-103 in 1971-72)

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

SOC 202 Structure of Inter-Personal Relations

The study of patterned relationships, social roles and social expectations which arise out of interactions among individuals.

Prerequisite: SOC 101 (SOC 101–103 in 1971–72)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SOC 203 History of Social Theory

This course is concerned with the development of sociology and with the works of particular Sociologists whose concepts not only have historical interest but also have relevance to contemporary sociology. (May not ordinarily be combined with SOC 313 in any degree programme.)

Prerequisite: SOC 101 (SOC 101–103 in 1971–1972)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SOC 205 Urban Sociology

Examines the city both as a significant development in world civilization and as a working mechanism guided by contemporary policies and studies human behaviour in its multifaceted relations with the urban environment.

Suggested prior course: SOC 101 (SOC 101–103 in 1971–72)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SOC 207 Sociology of Occupations

The relation of man to his occupations in a changing society including such topics as the meaning of work, occupational choice and mobility, bureaucracies, and women and other minority groups in the labour force.

Prerequisite: SOC 101 (SOC 101–103 in 1971–72)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SOC 212 Deviant Behaviour

A sociological analysis of deviant behaviour which examines theories of its genesis, social definition, maintenance, control, and social consequences.

Prerequisite: SOC 101 (SOC 101–103 in 1971–72) or permission of instructor.

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

SOC 301 Social Stratification

Examines theories of social stratification, its empirical forms and consequences, and the determinants of continuity and change of patterns of stratification.

Prerequisite: One course in SOC

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SOC 302 Sociology of the Family

The development of the contemporary Western family with special emphasis on the changing relations among its members.

Prerequisite: SOC 101 (101–103 in 1971–72)

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

SOC 303 Canadian Society

An analysis of the changing structure of Canadian society.

Prerequisite: SOC 101 (101–103 in 1971–72)

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

SOC 305 Sociology of Religion

In this course various theories of religious behaviour and organization will be examined. The role of religion in relation to social change and social integration will be given special attention. Current research and methods of study will also be stressed.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SOC 311 Sociology of Education

Focuses on the relationship between education and society in comparative perspective; on the internal structure of education systems and on the educational consequences of different organizational arrangements; on the current controversies surrounding the function and structure of the university.

Prerequisite: One course in SOC

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SOC 312 Population and Society

An analysis of mortality, fertility, and migration and the relation to population, social structure, mobility, and social change.

Prerequisite: One course in SOC

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

Spanish

Offered by the Department of Italian and Hispanic Studies

Chairman of Department/Professor G.L. Stagg

Undergraduate Secretary/Professor M.E. Rugg

Enquiries/21 Sussex Avenue, Room 224 (928–3357 for appointment)

Hispanic culture offers a variety probably unrivalled by any other modern western culture. In the Middle Ages Spain was the vital point of contact between the Christian and Islamic civilizations; in its Golden Age it led the way in the exploration and settlement of the New World, and established a great empire in the process; today it is estimated that the Spanish language is the third most widely-spoken in the world.

The subject 'Spanish' is mainly, but by no means exclusively, concerned with the language and literature of the Spanish-speaking peoples. Courses are offered for beginners in the language, as well as for those with Grade XIII standing or equivalent. Stress is laid on both the spoken and written language, and opportunities are provided for practice in each year. In the First Year, beginners receive an intensive course including work in the

language laboratory (SPA 100), while those with Grade XIII standing read selected works of modern Spanish literature, as well as continuing their study of the language (SPA 120). Of the two additional courses, both open to each group of students, one (SPA 150) provides a survey of the social, artistic and intellectual history of Spain; the other (SPA 125) investigates the history, structure and lexical content of the Spanish language. In the Second Year, a student in Spanish takes the core course of language practice (SPA 220 or 221Y). He may, if he chooses, also take half-courses in phonetics and phonemics, modern Spanish Literature, and Spanish American Civilization.

Second-Year students who do not wish to specialize in Spanish may continue with the intermediate language and reading offered in the full course SPA 200. A continuation of SPA 200 will be found in SPA 300. In addition to the third-year core half-course (SPA 320Y) and its fourth-year counterpart (SPA 420Y), which consist of advanced language practice, students may take any of the other half-courses in the 300- and 400-series, subject to the approval of the Department.

Requirements for programmes leading to the Type A course at The College of Education and Graduate Studies at the University of Toronto will be found in this Calendar under "Suggested Programmes of Study." Half-courses are offered in medieval Spanish literature, prose, verse and drama of the Golden Age and Modern periods, history of the language, Spanish-American novel, short story, essay, poetry and drama. In all years, outstanding literary works are read not only for their individual artistic value, but also as illustrations of the outlook and the intellectual climate of their age. Group discussions and the preparation of reports and essays are important means to this end.

Opportunities for qualified teachers of Spanish and another language exist in the high schools of Ontario. At the university level, there are opportunities for teachers of Spanish language and literature. In addition, the study of Spanish, as of other modern languages, may prepare students for such careers as the foreign service, publishing, journalism, and commercial and cultural relations between Canada and Spanish-speaking countries. The development of closer Canadian relations with Spain and Latin America will extend the range of available opportunities.

Spanish and Portuguese may be combined with courses in Anthropology, Geography, History, Political Economy and Sociology in an interdisciplinary programme of Latin American Studies. This programme provides a thorough grounding in the Spanish and Portuguese languages and an introduction to the literature, history and culture of Latin America. For the suggested course of study, see Latin American Studies under the heading "Suggested Programmes of Study."

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

Note: Students with an adequate knowledge of Spanish may be required to substitute another Spanish option for the language course or half-course in any year.

SPA 100 Spanish Language for Beginners

A basic introductory course which provides instruction in the spoken and written language. In addition to the three hours of classes in small groups, two hours of supervised instruction in the language laboratory afford the student an opportunity for intensive oral practice. The second term includes a study of leading contemporary authors of the Spanish-speaking world. (May not be taken by students with XIII SPA or whose knowledge of Spanish is equivalent to or better than that required for XIII SPA.)

Exclusion: SPA 120

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

SPA 200 Intermediate Spanish

The reading of some works of modern Hispanic literature; composition and oral practice. This course may not be counted towards a specialist or a double specialist programme.

Prerequisite: SPA 100/XIII SPA

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

SPA 220 Composition and Oral Practice I

This course is designed to give the student intensive practice in the language, both written and oral, to enable him to gain ease and fluency in both skills. The division into small groups will allow the instructor to give individual attention.

Prerequisite: SPA 100

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

SPA 225Y Spanish Phonetics and Phonemics

After an introduction to general phonetic theory, a detailed study of the sounds of contemporary Spanish will lead to a discussion of the way these sounds function in the phonemic system of the language.

Prerequisite: SPA 100/120

Co-requisite: SPA 220/221Y

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

SPA 236Y Spanish Poetry from 1830 to 1930

A study of some major poets of the nineteenth and twentieth centuries showing successive changes in poetic style and in the treatment of reality from Romanticism to Surrealism. The lecture period in English/Spanish will be supplemented by seminar discussion of poems in Spanish for additional oral practice.

Prerequisite: SPA 100/120

Co-requisite: SPA 220/221Y

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

SPA 246F Spanish Drama from 1830 to 1930

The Romantic revolt against Neo-Classicism; the Realistic theatre's presentation of moral and social questions; later trends toward discussion of philosophical and psychological problems.

Prerequisite: SPA 100/120

Co-requisite: SPA 220/221Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SPA 246Y Spanish Drama from 1830 to 1930

The Romantic revolt against Neo-Classicism; the Realistic theatre's presentation of moral and social questions; later trends toward discussion of philosophical and psychological problems.

Prerequisite: SPA 100/120

Co-requisite: SPA 220/221Y

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

SPA 256S The Modern Spanish Novel

The development of the Spanish novel studied in representative works of major novelists from Romanticism to the Civil War (1936–39).

Prerequisite: SPA 100/120

Co-requisite: SPA 220/221Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SPA 280Y Spanish American Civilization

Significant cultural manifestations in Latin America, from the pre-Columbian civilizations to the present, will be examined using background texts and specific literary works. A lecture-discussion period, conducted in Spanish, will be supplemented by a seminar hour designed to improve oral proficiency in Spanish.

Prerequisite: SPA 100/120

Co-requisite: 220/221Y

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

COURSES OPEN TO THIRD- AND HIGHER-YEAR STUDENTS

Note: All courses in the 300 and 400 series (except SPA 420Y) may be taken in Third or Fourth Year, but the choice of option is subject to the approval of the Department.

SPA 320Y Composition and Oral Practice III

This course provides, in small groups, intensive practice in written and oral Spanish.

Prerequisite: SPA 220Y/221Y

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

SPA 333F Golden Age Verse

A study of major Renaissance and Baroque poets representing the main trends in Spanish poetry and poetics of this period. The lectures will be in Spanish, supplemented by seminar discussion (oral and written) of selected poems.

Prerequisite: SPA 220Y/221Y

Co-requisite: SPA 320Y/420Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SPA 343Y Golden Age Drama

A study of the development of Spanish drama in the sixteenth and seventeenth centuries, with the careful reading of ten representative plays. Stress is laid on the stage presentations both in the popular theatres and in the court theatres.

Prerequisite: SPA 220Y/221Y

Co-requisite: SPA 320Y/420Y

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

SPA 353Y Golden Age Prose

A study is made of the different varieties of prose fiction (e.g., chivalresque, pastoral, picaresque) cultivated in the Golden Age, with special reference to representative examples. Major attention is paid to *Don Quijote*.

Prerequisite: SPA 220Y/221Y

Co-requisite: SPA 320Y/420Y

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

SPA 380Y Spanish American Literature from 1500 to 1880

Literary currents of the colonial period and the nineteenth century prior to *modernismo*: the growth of cultural self-expression.

Prerequisite: SPA 220Y/221Y *Co-requisite:* SPA 320Y/420Y

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

SPA 381S Spanish American Literature from 1880 to the Present

Designed for non-specialists and specialists alike, this course explores the most significant trends in Spanish American literature since 1880. Basic concepts will be illustrated by a study of exemplary works from all major genres (novel, drama, short story, poetry and essay).

Prerequisite: SPA 220Y/221Y *Co-requisite:* SPA 320Y/420Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SPA 425Y History of the Spanish Language

The evolution of Spanish from Pre-Romanic times to the present. The main aspects to be treated are: the dialectalization of Hispano-Latin through inherent linguistic changes and influences from other languages, and the development of Castilian from a dialect in the medieval period into one of the most important languages of the world in modern times.

Prerequisite: SPA 220Y/221Y

Co-requisite: SPA 320Y/420Y

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

SPA 436S Spanish Poetry since 1930

A study of some major poets and poetics of the twentieth century. The lectures will be in Spanish, supplemented by oral and written analysis of selected poems in the tutorial groups.

Prerequisite: SPA 220Y/221Y

Co-requisite: SPA 320Y/420Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SPA 446Y Spanish Drama since 1930

Naturalism and sentiment in the middle-class comedy of manners; the influence of 'Modernism,' the experimental techniques in the *teatro de vanguardia* and the influence of the expressionistic and grotesque theatres; the escape from reality and the theatre of the absurd; recent trends in themes of social protest.

Prerequisite: SPA 220Y/221Y

Co-requisite: SPA 320Y/420Y

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

SPA 456Y Studies of Major Modern Spanish Novelists

An intensive study of the principal Spanish contributions to the European Novel in the nineteenth and twentieth centuries.

Prerequisite: SPA 220Y/221Y

Co-requisite: SPA 320Y/420Y

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

SPA 461Y Spanish American Modernista Verse

Spanish America's attempts to free itself from dependence on Spanish literary norms and to find its own identity are studied in the works of outstanding exponents of Modernism, the first truly original movement in Hispanic American literature (1880-1920).

Prerequisite: SPA 220Y/221Y

Co-requisite: SPA 320Y/420Y

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

SPA 466Y Spanish American Verse since Modernismo

A study of the different currents in twentieth century Spanish American Verse with specific reference to their outstanding exponents.

Prerequisite: SPA 220Y/221Y

Co-requisite: SPA 320Y/420Y

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

SPA 482Y Twentieth Century Spanish American Novel

Representative works, including the *novela gauchesca*, the *novela indianista*, and the *novela de la revolución mexicana*.

Prerequisite: SPA 220Y/221Y

Co-requisite: SPA 320Y/420Y

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

SPA 484Y Modern Spanish American Cuento

Representative works from the short story genre in the nineteenth and twentieth centuries, including Borges, Cortázar, Rulfo and others.

Prerequisite: SPA 220Y/221Y

Co-requisite: SPA 320Y/420Y

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

SPA 486F Spanish American Essay

A study of the search by modern essayists for the spiritual essence of Spanish America in an age of growing materialism and cultural upheaval.

Prerequisite: SPA 220Y/221Y

Co-requisite: SPA 320Y/420Y

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

COURSES OPEN TO FOURTH-YEAR STUDENTS

SPA 420Y Composition and Oral Practice IV

A course designed to provide fluency in the language, both at the literary and colloquial level, with intensive written and oral practice in small groups. (This course is open only to Fourth-Year students, who may substitute another Spanish option for this course, subject to the approval of the Department.)

Prerequisite: SPA 320Y

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

Statistics

Offered by the Department of Mathematics

STA 222 General Statistics

Graphs, averages, frequency distributions, elements of probability theory, tests of significance, analysis of variance, regression, applications.

Reference: Freund, *Modern Elementary Statistics*

Exclusion: ECO 220, GGR 270/271, GLG 221Y, SOC 201, STA 232/242/252

Prerequisite: XII MAT (not open to first year students)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

STA 232 Introduction to Statistics

Elements of probability theory, standard distributions, sampling, significance tests and confidence intervals, least squares, analysis of variance, introduction to the design of experiments and sample surveys.

Exclusion: ECO 220, GGR 270/271, GLG 221Y, SOC 201, STA 222, 242/252

Prerequisite: MAT 110/130/134/135/139/150

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Zoology

Chairman of Department/Professor D.A. Chant

Associate Chairman/Professor R.R. Langford

Undergraduate Secretary/Professor J.B. Falls

Enquiries/Ramsay Wright Building (928-8879 for appointment)

Zoology is the branch of the biological sciences concerned with the animal kingdom, and thus provides a broad perspective of man's place in the natural world. Basic awareness of the population explosion and its consequences have come from Zoological research. Ecological studies of the interaction of plants and animals with their environments provide insights into such human problems as famine, disease, and pollution, and also provide a basis for the management of biological resources, such as fisheries and natural areas for recreation. Zoology plays a part not only in the study of life-support systems on our planet, but also for space travel. One modern aspects of Zoology is animal behaviour, the study of which helps us to understand human behaviour in warfare, politics, and other activities. Zoologists study the effects of radiation on animals and their surroundings, and formulate rules that can be applied to man. Much of the research done in medicine depends on discoveries made with other animals and applied to man. Many agricultural fields, such as veterinary medicine and economic entomology, also depend on Zoological research.

Historically, Zoology was largely an observational science, but now has become more experimental and theoretical and depends in its research on the modern principles of mathematics and the physical sciences. The main theoretical contributions of zoologists have been in the understanding of life in terms of physical and chemical mechanisms, and the theory of organic evolution.

A Zoologist is a scientist who is engaged in the study of the structure, functioning, and interrelationships among animals. The general field of Zoology is divided into a large number of special areas of study and research. Zoology may be divided on the basis of the classification of animals, including Protozoology, Entomology, Mammalogy, and Ichthyology. Another way is to divide it by levels of organization and/or methods of study, such as Molecular Biology, Cell Biology, Morphology, Physiology, Genetics, Ethology, and Population Biology.

Modern Zoology depends on knowledge in many other scientific disciplines. The fruitful interaction of Zoology with the other sciences is encouraged at the University of Toronto. Special branches of Zoology can be combined with studies in other fields, such as Anthropology, Botany, Geology, Mathematics, Medical Biophysics, Medicine (including Anatomy, Biochemistry, and Physiology) and Psychology. Many of the professors in the Department of Zoology do research and teach in other departments of the University to which they are cross-appointed. Members of the Zoology Department also maintain active programmes in affiliation with the Royal

Ontario Museum, The Great Lakes Institute, the Ontario Department of Lands and Forests, and the Fisheries Research Board of Canada, to mention but a few associations. The relationships and opportunities for research and study between different disciplines are constantly being investigated and extended.

Careers in Zoology are mainly in research, seeking new knowledge on which to base our understanding of biological principles; in teaching in secondary schools, community colleges, and universities; and in technical work such as drug testing, pest control, fish and wildlife management, and animal production. Zoologists are chiefly employed by government departments concerned with natural resources, by research institutes and medical laboratories and by educational institutions. A few are employed in resource industries, pharmaceutical laboratories, and other areas. Professional careers in Zoology require specialization at the undergraduate level, and usually an advanced degree. Students should bear this in mind when planning their programmes.

Students who intend to become secondary-school biology teachers are urged to plan their programmes to meet the requirements of the High School Assistant's Certificate, Type A. For current information on these requirements consult the Office of Advanced Standing, The College of Education, 371 Bloor Street West, Toronto 181, Ontario.

Two types of courses are offered by the Department of Zoology:

- 1 Generalist courses (ZOO 200–201), primarily for the student who either does not wish to specialize in any discipline or who wishes to specialize in a discipline other than Zoology yet include some Zoology in his programme. These generalist courses cover a broad area and stress the relationship of special aspects of Zoology to other human activities. Even if a student does not seek to specialize in Zoology, he may enrol in any course offered.
- 2 Specialist courses (ZOO 211 and higher numbers), primarily for the student who wishes to specialize in Zoology or Biology. These specialist courses deal directly with the subject, and its relationship to other disciplines is not stressed. The student specializing in Zoology or Biology may take generalist Zoology courses in areas other than those of his speciality in order to broaden his background in the Life Sciences, and to study their relationship to other disciplines.

In making a selection of Zoology and other science courses in a given year, the student should ensure that prerequisites for courses to be taken with other departments in higher years are obtained.

There is no prescribed programme for students who wish to specialize in and prepare for a career in Zoology. However, such students are advised to build their programmes along the lines shown under Zoology in the section of this *Calendar* entitled 'BSc Programmes.'

Many variations on the suggested programme are possible, depending on the student's individual interests and needs. For example, a student interested in Quantitative Ecology may wish to take additional courses in Mathematics (see Programme in Mathematics and Biology); one interested broadly in Biology may wish to substitute courses in Botany for some of

those suggested (see Programme in Biology); or one interested in Cellular Zoology or Physiology may wish to take more Chemistry, Physics, or Biochemistry than the suggested minimum. Specialist students are urged to take advantage of the counselling services provided by the Department before selecting courses for their programmes.

ZOO 200 and 201 are available to any student in the University in any year. Students entering university with Grade XIII Biology may be allowed to enrol directly in other Zoology courses which are primarily for students in second or higher years. Normally, however, they will be advised to take BIO 100/120 to ensure an adequate background for further study in the Life Sciences. Prerequisites and co-requisites for all Zoology courses are suggested, not required, but course content will be based on the assumption that students have a background equivalent to that implied by these recommendations. In cases in which the enrolment must be limited, a student's preparation may be taken into account.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

BIO 100 **Biological Principles and Processes**

See description under Biology.

BIO 120 **Evolutionary and Environmental Biology**

See description under Biology.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

ZOO 212 **Physiology and Development**

This course considers the interactions between physiological functions and developmental processes. Topics include the fundamentals of animal physiology, development of respiration, physiology of reproduction and early development, growth and metabolism, nervous control of regeneration, and hormonal control of invertebrate metamorphosis and diapause.

Prerequisite: BIO 100/120

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

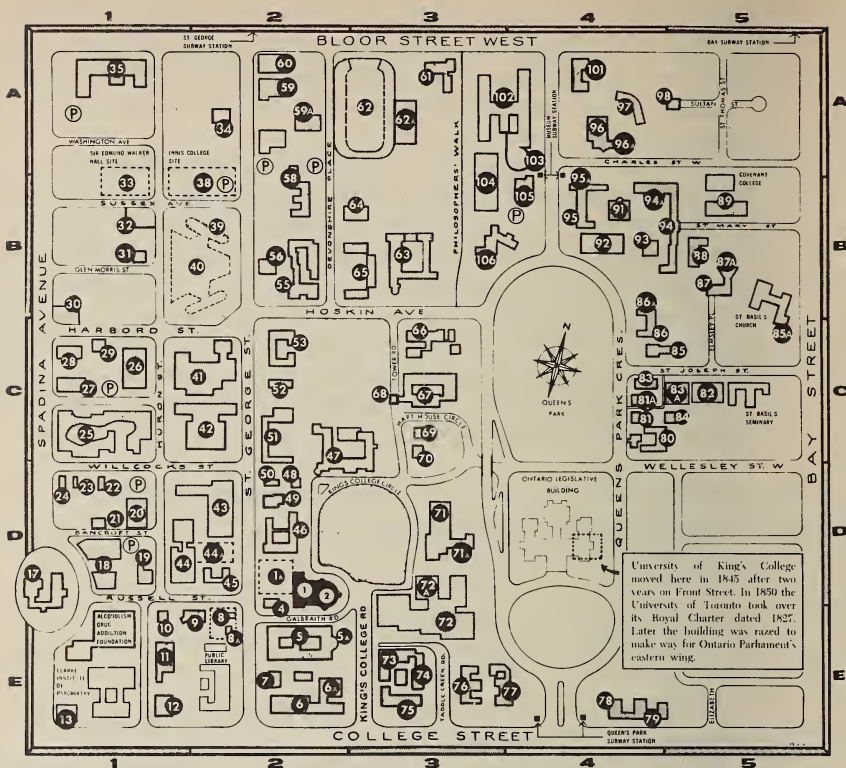
ZOO 223 **Animal Ecology**

This course deals with relationships of organisms to their physical and biotic environment. Topics include: study of a particular ecosystem, physical environmental factors, biotic communities, trophic structure, energetics, and population processes. Ecological problems affecting man are briefly considered. Practical work includes field work, experimental laboratories, and computer simulations.

Prerequisite: BIO 100/120; a statistics course is also recommended.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

The St. George Campus, University of Toronto



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SUNNYBROOK HOSPITAL Back Cover

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University of Toronto Press

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STEAM PLANT.....	9 (E-1)
STUDENTS' ADMIN. COUNCIL.....	69 (C-3)
STUDENTS' ASSN., PART-TIME.....	83 (C-4)
TEEFY HALL (St. Michael's).....	86 (C-4)
TEXT BOOK STORE.....	20 (D-1)
THEOLOGY, TORONTO SCHOOL OF 4 St. Thomas St.	
TRINITY COLLEGE.....	63 (B-3)
UNIVERSITY COLLEGE.....	47 (C-2)
VARSITY NEWSPAPER.....	56 (B-2)
VICTORIA COLLEGE.....	91 (B-4)
VICTORIA COLLEGE (Admin. Academic).....	92 (B-4)
VICTORIA-EMMANUEL RESIDENCE.....	94 (B-5)
VICTORIA GYMNASIUM.....	98 (A-5)
VICTORIA COLLEGE LIBRARY.....	93 (B-4)
WALLBERG BUILDING.....	6 (E-2)
WHITNEY HALL (U.C.).....	53 (C-2)
WOMEN'S UNION (U.C.).....	52 (C-2)
WYCLIFFE COLLEGE.....	66 (C-3)
WYMILWOOD (Victoria).....	96A (A-4)

THE GREAT GATHERING PLACES

Convocation Hall.....	2 (D-2)
Hart House.....	67 (C-3)
Edward Johnson Building.....	104 (B-3)
Stadium and Arena.....	62 (A-3)
Med. Sc. Auditorium.....	72A (D-3)

PARKING FACILITIES ON ST. GEORGE CAMPUS

Visitors may park in supervised areas (marked P on map) when space is available after University permit holders have been accommodated.

Commercial parking lots nearest to the campus are at Bloor and Avenue Rd. (A-4); College and Elizabeth (E-5); College and University (E-4); College, west of Central Public Library (E-2).

Parking on public streets within the campus is metered where permitted. Parking in unauthorized zones is subject to fines of up to \$10.

Key to Course Descriptions and Timetables

The session in which a course is offered is indicated after each course description. An 'X' is shown after the name of the session in which a course is offered *this year*.

Summer Evening: Summer Evening Session 1972

Summer Day: Summer Day Session 1972

Winter: Winter Session 1972-1973

Not offered: Not offered through the Division of University Extension *this year*

In the following example, ANT 204 is shown as being offered in the Summer Evening Session and the Winter Session:

ANT 204 Social and Cultural Anthropology

The study of social organization and structure including belief systems, kinship and marriage, politics and ecology.

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

If there is no suffix after an Arts and Sciences course number, it is a full course given throughout the session. The following suffixes indicate half-courses:

F: a half-course given in the first half of the session

S: a half-course given in the second half of the session

Y: a half-course given throughout the session

	<i>Summer Evening</i>	<i>Summer Day</i>	<i>Winter Session</i>
Full courses	May 15-Aug. 11	July 4-Aug. 11	Sept. 11-April 13
F: courses	May 15-June 22	July 4-July 21	Sept. 11-Dec. 8
S: courses	July 4-Aug. 11	July 24-Aug. 11	Jan. 8-April 13
Y: courses	May 15-Aug. 11	July 4-Aug. 11	Sept. 11-April 13

Key to Building Abbreviations

- BT Botany, 6 Queen's Park Crescent
- EJ Edward Johnson, 80 Queen's Park
- EX Extension Annex, 47 Queen's Park Crescent
- LA Larkin, Devonshire Place
- LM Lash Miller, 80 St. George Street
- MA Massey College, 4 Devonshire Place
- MB Mining, 170 College Street
- MP McLennan Physical Laboratories, 255 Huron Street
- MS Medical Sciences, 1 King's College Circle
- NA New Academic (Victoria), 73 Queen's Park
- NC New College, 300 Huron Street
- NU Nursing, 50 St. George Street
- RW Ramsay Wright, 25 Harbord Street
- SS Sidney Smith Hall, 100 St. George Street
- TC Trinity College, 2 Hoskin Avenue
- TF Teefy Hall, 81 St. Mary Street
- TS Textbook Store, 280 Huron Street
- TT 455 Spadina Avenue
- UC University College, 15 King's College Circle

TIMETABLE/ARTS AND SCIENCE/ST. GEORGE CAMPUS
Summer Evening Session 1972
May 15–August 18

COURSE	EVENING	TIME	BUILDING	ROOM	INSTRUCTOR
ANT 100	Mon. & Wed.	7:00–9:30	SS	2102	T.F.S. McFeat
ANT 204	Mon. & Wed.	7:00–9:30	SS	1071	To be announced
ANT 241	Mon. & Wed.	7:00–9:30	SS	1083	R.W. Dunning
BIO 100	Tues. & Thurs.	6:30–9:30	RW	110	To be announced
COM 100	Tues. & Thurs.	7:00–9:30	SS	2108 2110	P. Yardley T. O'Neill
COM 221F	Tues. & Thurs.	7:00–9:30	SS	1071	R. Gibson
COM 222S	Tues. & Thurs.	7:00–9:30	SS	1071	R. Gibson
COM 320	Tues. & Thurs.	7:00–9:30	SS	1069	L. Brooks
COM 332	Mon. & Wed.	7:00–9:30	MP	137	W.J.Patterson
*CSC 228Y	Monday	7:00–9:30	SS	2108	S. Glasser
*CSC 248Y	Tuesday	7:00–9:30	RW	143	J. Mylopoulos
*ECO 100	Mon. & Wed.	7:00–9:30	SS	1069	G. Slasor
ECO 200	Tues. & Thurs.	7:00–9:30	SS	1083	A.M. Watson
*ECO 221	Tues. & Thurs.	7:00–9:30	SS	1085	F.B. Mayer
ENG 108	Mon. & Wed.	7:00–9:30	SS	1084 1086 1088	To be announced To be announced To be announced
ENG 152	Mon. & Wed.	7:00–9:30	LM	123	To be announced
ENG 218	Tues. & Thurs.	7:00–9:30	MP	373	B.S. Hayne
ENG 328	Tues. & Thurs.	7:00–9:30	MP	118	H. Kerpeck
ENG 338	Tues. & Thurs.	7:00–9:30	MP	713	M. Kirkham
FAR 220	Tues. & Thurs.	7:00–9:30	SS	1070	To be announced
FRE 120	Tues. & Thurs.	7:00–9:30	SS	1084 1086	P.R. Findlay A. Stein
FRE 271	Mon. & Wed.	7:00–9:30	MP	257 373	W.A. Oliver Y. Resch
FRE 320	Mon. & Wed.	7:00–9:30	MP	118	D.A. Trott
FRE 368	Mon. & Wed.	7:00–9:30	MP	053	P. Bouissac
FRE 371	Mon. & Wed.	7:00–9:30	MP	713	J.C. Susini
*GGR 334F	Mon. & Wed.	7:00–9:30	SS	597	J. Whitney
GGR 340	Tues. & Thurs.	7:00–9:30	SS	622	J. Spelt
†GGR 390F	Monday	6:30–9:30	SS	621	A.V. Jopling
*HIS 232	Tues. & Thurs.	7:00–9:30	SS	1088	M. Israel
HIS 240	Tues. & Thurs.	7:00–9:30	SS	2106	W.J. Callahan J.M. Estes
*HIS 250	Tues. & Thurs.	7:00–9:30	SS	597	H.L. Dyck J.R. Fisher
*HIS 290	Tues. & Thurs.	7:00–9:30	SS	1022	T.M. Brady
*HIS 338	Wednesday	7:00–9:30	SS	2110	D.F. Smith
*HIS 478	Mon. & Wed.	7:00–9:30	SS	2106	R.D. Accinelli
ITA 100	Mon. & Wed.	7:00–9:30	SS	1070 1072	To be announced To be announced
ITA 220	Tues. & Thurs.	7:00–9:30	SS	1074	To be announced
ITA 320	Tues. & Thurs.	7:00–9:30	SS	1072	To be announced
ITA 426Y	Tuesday	7:00–9:30	MP	053	To be announced
*MAT 110	Mon. & Wed.	7:00–9:30	SS	1087	J.C. Beukema
*MAT 220	Tues. & Thurs.	7:00–9:30	SS	1087	P.C. Greiner
*MAT 364Y	Wednesday	7:00–9:30	SS	592	D.K. Sen

*In addition to the lectures, tutorials will be arranged in these courses.
†Field work will be carried out on weekends.

TIMETABLE/ARTS AND SCIENCE/ST. GEORGE CAMPUS (Continued)

Summer Evening Session 1972

May 15–August 18

COURSE	EVENING	TIME	BUILDING	ROOM	INSTRUCTOR
PHI 270	Tues. & Thurs.	7:00–9:30	LM	158	A.E. Wingell
PHL 100	Mon. & Wed.	7:00–9:30	LM	158	W.D. Neelands
PHL 250F	Tues. & Thurs.	7:00–9:30	LM	123	A. Rosenthal
PHL 251S	Tues. & Thurs.	7:00–9:30	LM	123	J. Brunning
*POL 100	Mon. & Wed.	7:00–9:30	MS	4279	D.H. Gardner
POL 208	Mon. & Wed.	7:00–9:30	SS	1085	R. Gregor
POL 322	Mon. & Wed.	7:00–9:30	LM	155	W.E. Grasham
POL 329	Tues. & Thurs.	7:00–9:30	LM	155	D.A.V. McDonald
PSY 100	Mon. & Wed.	7:00–9:30	MS	3163	To be announced
				3171	To be announced
				4171	To be announced
PSY 202F	Mon. & Wed.	7:00–9:30	SS	622	To be announced
PSY 203S	Mon. & Wed.	7:00–9:30	SS	597	To be announced
PSY 204S	Mon. & Wed.	7:00–9:30	SS	622	To be announced
PSY 206S	Mon. & Wed.	7:00–9:30	LM	157	To be announced
PSY 207F	Tues. & Thurs.	7:00–9:30	LM	157	To be announced
PSY 221F	Mon. & Wed.	7:00–9:30	SS	1022	To be announced
PSY 224F	Mon. & Wed.	7:00–9:30	LM	157	To be announced
PSY 230S	Tues. & Thurs.	7:00–9:30	LM	157	To be announced
PSY 302S	Mon. & Wed.	7:00–9:30	SS	1022	To be announced
PSY 326S	Mon. & Wed.	7:00–9:30	RW	229	To be announced
PSY 330S	Tues. & Thurs.	7:00–9:30	RW	229	To be announced
PSY 340S	Mon. & Wed.	7:00–9:30	RW	143	To be announced
REL 306	Tues. & Thurs.	7:00–9:30	RW	142	H.J. McSorley
SOC 101	Mon. & Wed.	7:00–9:30	MP	102	To be announced
SOC 201	Mon. & Wed.	7:00–9:30	MP	134	To be announced
SOC 212	Tues. & Thurs.	7:00–9:30	MP	134	To be announced
SOC 302	Tues. & Thurs.	7:00–9:30	MP	137	To be announced
SPA 100	Tues. & Thurs.	7:00–9:30	SS	592	To be announced
SPA 220	Mon. & Wed.	7:00–9:30	SS	504	To be announced
SPA 320Y	Tuesday	7:00–9:30	SS	504	To be announced
SPA 353Y	Wednesday	7:00–9:30	SS	539	To be announced
SPA 420Y	Thursday	7:00–9:30	SS	539	To be announced
SPA 484Y	Monday	7:00–9:30	SS	1028	To be announced

*In addition to the lectures, tutorials will be arranged in these courses.

TIMETABLE/ARTS AND SCIENCE/ST. GEORGE CAMPUS

Summer Day Session 1972

July 4-August 18

COURSE		TIME	BUILDING	ROOM	INSTRUCTOR
ANT 100	10:30-12:30	MS	3153	D.R. Hughes	
ANT 204	8:15-10:15	MS	3153	To be announced	
ANT 241	2:30-4:30	MP	102	To be announced	
†ANT 311F-					
312S	10:30-12:30	SS	560	J.N. Emerson	
CSC 148Y	12:30-1:30	SS	1071	P. Keast	
°EAS 100	8:15-2:30	TS	316	S. Tsau	
EAS 102	10:30-12:30	TS	315	J. Brownlee	
				P. Mitchell	
°EAS 120	8:15- 2:30	TS	322	K. Nakajima	
°EAS 200	8:15- 2:30	SS	2116	C.Y. Lee	
°EAS 220	8:15- 2:30	TS	308	S. Uyenaka	
EAS 224	2:30- 4:30	TS	315	K. Tsuruta	
°EAS 320	8:15-12:30	SS	2115	K. Tsuruta	
°EAS 332	8:15- 2:30	SS	2114	M. Dolezelova	
ECO 100	2:30- 4:30	SS	1071	To be announced	
*ECO 101	10:30-12:30	SS	1071	A. Watson	
ECO 202	10:30-12:30	SS	597	J. Carr	
ENG 108	10:30-12:30	RW	142	To be announced	
		RW	143	To be announced	
		RW	229	To be announced	
ENG 200	12:30- 2:30	SS	597	D.N. Klausner	
ENG 212	10:30-12:30	MP	373	To be announced	
ENG 302	12:30- 2:30	SS	1074	M. Dixon	
ENG 306	2:30- 4:30	SS	597	To be announced	
ENG 308	2:30- 4:30	SS	592	J. Reibetanz	
ENG 312	2:30- 4:30	SS	1086	K. Kee	
ENG 322	10:30-12:30	LM	123	S.F.G. Niermeier	
ENG 328	10:30-12:30	LM	155	W.B. Hennessey	
ENG 332	10:30-12:30	SS	1083	P.V. Marinelli	
ENG 338	10:30-12:30	LM	157	F. Marker	
ENG 348	12:30- 2:30	LM	123	W.D. Shaw	
ENG 354	2:30- 4:30	LM	123	E. Domville	
FAR 101	10:30-12:30	SS	2118	To be announced	
FAR 230	1:30- 5:30	SS	1070	To be announced	
FRE 120	2:30- 4:30	LM	155	P. Perron	
			157	J. Yashinsky	
FRE 271	12:30- 2:30	LM	155	P.R. Ducretet	
			157	P. Bouissac	
FRE 316	12:30- 2:30	SS	1022	B. Merrilees	
FRE 318	2:30- 4:30	SS	1022	J. Walker	
FRE 322	2:30- 4:30	SS	2120	F. Gerson	
FRE 330	12:30- 2:30	SS	2120	P. Collet	
FRE 366	10:30-12:30	SS	2120	P. Fitting	
FRE 371	2:30- 4:30	MP	373	P. Nesselroth	
FRE 372	10:30-12:30	MP	118	J. Yashinsky	
FRE 374	12:30- 2:30	MP	118	F. DesRoches	

†Must be taken as full courses.
°Students who register in one of these courses may not register for an additional course in the Summer Day Session.
*In addition to the lectures, tutorials will be arranged in these courses.

TIMETABLE/ARTS AND SCIENCE/ST. GEORGE CAMPUS (Continued)

Summer Day Session 1972

July 4–August 18

COURSE	TIME	BUILDING	ROOM	INSTRUCTOR
GER 130	10:30–12:30	MP	053	H. Wittmann
GER 230	12:30– 2:30	MP	053	C. Butler
GER 322	10:30–12:30	MP	713	W. Hempel
GER 421	2:30– 4:30	MP	713	C.N. Genno
*GGR 100	10:30–12:30	SS	622	C. Embleton
*GGR 224	12:30– 2:30	SS	622	A. Baker
GGR 270	2:30– 4:30	SS	622	G. Hewings
+GGR 390F	2:00– 5:00	SS	621	A.V. Jopling
GLL 200	2:30– 4:30	MP	053	R.J. Tarrant
GRH 100	12:30– 2:30	MP	257	J. Boake
GRH 300	2:30– 4:30	MP	257	R. Toporoski
HIS 262	10:30–12:30	SS	1069	R. Bothwell
*HIS 271	10:30–12:30	SS	1074	W.C. Berman
*HIS 333	10:30–12:30	SS	1022	J.M. Beattie
				M.G. Finlayson
*HIS 341	10:30–12:30	SS	1088	R.F. Harney
ITA 100	10:30–12:30	SS	1070	To be announced
			1072	To be announced
ITA 120Y	10:30–11:30	SS	2123	To be announced
ITA 122Y	10:30–11:30	SS	2121	To be announced
ITA 220	2:30– 4:30	SS	2114	To be announced
ITA 222	12:30– 2:30	SS	2119	To be announced
ITA 223Y	2:30– 3:30	SS	2121	To be announced
ITA 321	10:30–12:30	SS	2119	To be announced
ITA 424Y	2:30– 3:30	SS	2119	To be announced
JAL 100	12:30– 2:30	SS	1072	To be announced
JES 126	8:15–10:15	TS	315	D.B. Waterhouse
JMC 300	12:30– 2:30	TS	323	To be announced
LIN 333	10:30–12:30	MP	257	To be announced
*MAT 130	8:15–10:15	SS	1069	J.A. Rottenberg
*MAT 225	12:30– 2:30	SS	1069	J.V. Corbett
*MAT 314Y	2:30– 3:30	SS	1069	N. Derzko
MUS 100	10:30–12:30	EJ	116	To be announced
MUS 140	8:15–12:30	EJ	224	To be announced
PHI 280	2:30– 4:30	SS	1087	T. Lang
PHL 102	2:30– 4:30	SS	1072	C. Cassin
†PHL 240F–				
241S	10:30–12:30	SS	1085	C.W. Webb
PHY 130	10:30–12:30	MP	134	J.C. Stryland
	2:00– 5:00			
PHY 309Y	10:30–12:30	MP	137	P. Ottensmeyer
*POL 100	10:30–12:30	SS	2117	R.S. Blair
*POL 203	2:30– 4:30	SS	1074	To be announced
*POL 320	2:30– 4:30	SS	1084	R.A. Fenn
PSY 100	12:30– 2:30	SS	1083	To be announced
			1084	To be announced
			1085	To be announced
			1086	To be announced

*In addition to the lectures, tutorials will be arranged in these courses.

†Field work may be carried out on weekends. The first meeting is on July 5.

‡Must be taken as full courses.

TIMETABLE/ARTS AND SCIENCE/ST. GEORGE CAMPUS (*Concluded*)

Summer Day Session 1972

July 4 -August 18

COURSE	TIME	BUILDING	ROOM	INSTRUCTOR
PSY 202Y	10:30-11:30	SS	1087	To be announced
PSY 203Y	11:30-12:30	SS	1087	To be announced
PSY 204Y	12:30- 1:30	SS	1088	To be announced
PSY 207Y	1:30- 2:30	SS	1088	To be announced
PSY 209Y	2:30- 3:30	SS	1088	To be announced
PSY 220Y	3:30- 4:30	SS	1088	To be announced
PSY 301Y	1:30- 2:30	SS	592	To be announced
PSY 304Y	2:30- 3:30	SS	1083	To be announced
PSY 307Y	3:30- 4:30	SS	1083	To be announced
REL 110	10:30-12:30	LA	341	B.S. Alton
REL 220	2:30- 4:30	SS	1085	To be announced
‡SLA 100	8:15-12:30	SS	2146	To be announced
‡SLA 220	8:15-12:30	SS	2131	To be announced
‡SLA 320	8:15-12:30	SS	2134	To be announced
SOC 101	10:30-12:30	SS	2102	To be announced
SOC 303	12:30- 2:30	SS	2102	To be announced
SOC 312	10:30-12:30	SS	592	To be announced
SPA 100	10:30-12:30	SS	1084	To be announced
			1086	To be announced
SPA 200	2:30- 4:30	SS	2121	To be announced
SPA 220	10:30-12:30	SS	2112	To be announced
SPA 246Y	2:30- 3:30	SS	2115	To be announced
SPA 320Y	12:30- 1:30	SS	2112	To be announced
SPA 343Y	2:30- 3:30	SS	2116	To be announced
SPA 466Y	2:30- 3:30	SS	2131	To be announced
ZOO 223	9:00-12:00	RW	003	R.C. Plowright
	2:00- 4:00			

‡Because of the intensive nature of these courses, classes will commence on June 19.

TIMETABLE/ARTS AND SCIENCE/ST. GEORGE CAMPUS

Winter Session 1972-1973

September 11-April 13

COURSE	EVENING	TIME	BUILDING	ROOM	INSTRUCTOR
ANT 100	Monday	7:30- 9:30	MS	3153	To be announced
ANT 201	Wednesday	7:30- 9:30	NC	523	J.N. Emerson
ANT 203	Wednesday	7:30- 9:30	SS	1069	J. Mavalwala
ANT 204	Tuesday	7:30- 9:30	SS	592	M.D. Levin
ANT 241	Thursday	7:30- 9:30	LM	158	G.B. Inglis
ANT 336F	Thursday	7:30- 9:30	SS	2106	A.K. Ray
ANT 440	Monday	7:30- 9:30	SS	1022	W. Weissleder
ANT 443	Wednesday	7:30- 9:30	NC	524	S.B. Philpott
ANT 452F	Tuesday	7:30- 9:30	MS	2172	R.A. Wright
ANT 472S	Tuesday	7:30- 9:30	MS	2172	R.A. Wright
*APM 331F	Wednesday	7:30- 9:30	RW	142	M.F. Gardner
*APM 336S	Wednesday	7:30- 9:30	RW	142	M.F. Gardner
AST 100	Thursday	7:00-10:00	MP	137	To be announced
BIO 120	Monday	7:30- 9:30	RW	110	G. Knerer
	Wednesday	7:00-10:00			
BOT 220	Tuesday	7:30- 9:30	BT	203	K.R. Chandorkar
	Thursday	6:30- 9:30			
CHM 100	Wednesday	4:00- 6:30	LM	123	J.E. Guillet
CHM 120	Monday	7:30- 9:30	LM	159	To be announced
	Wednesday	6:30-10:00	LM	159	To be announced
CHM 240	Tuesday	7:30- 9:30	LM	161	To be announced
	Wednesday	6:30-10:30	LM	161	To be announced
COM 100	Monday	7:30- 9:30	MS	3163	To be announced
				3171	To be announced
				4171	To be announced
COM 221F	Monday	7:30- 9:30	MS	2173	To be announced
				4279	To be announced
COM 222S	Monday	7:30- 9:30	MS	2173	To be announced
				4279	To be announced
COM 300	Wednesday	7:30- 9:30	MS	3163	To be announced
COM 320	Monday	7:30- 9:30	SS	2106	To be announced
COM 331	Thursday	7:30- 9:30	MS	2173	To be announced
COM 332	Wednesday	7:30- 9:30	MS	4171	To be announced
COM 420	Saturday a.m.	10:00-12:00	SS	2108	To be announced
COM 423	Monday	7:30- 9:30	SS	2127	To be announced
*CSC 108F	Wednesday	7:30- 9:30	RW	229	To be announced
*CSC 118S	Wednesday	7:30- 9:30	RW	229	To be announced
*CSC 148F	Wednesday	7:30- 9:30	RW	143	J.D. Lipson
*CSC 158S	Wednesday	7:30- 9:30	RW	143	K.C. Sevcik
*CSC 228F	Tuesday	7:30- 9:30	MP	134	S. Glasser
CSC 236S	Monday	7:30- 9:30	SS	1071	To be announced
*CSC 238S	Tuesday	7:30- 9:30	MP	134	S. Glasser
*CSC 258F	Wednesday	7:30- 9:30	MP	134	D.B. Wortman
*CSC 378S	Wednesday	7:30- 9:30	MP	134	J. Mylopoulos
EAS 100	Mon. & Wed.	7:30- 9:30	TS	322	C.Y. Lee
					C.C. Wang
EAS 120	Mon. & Wed.	7:30- 9:30	TS	316	K. Nakajima
EAS 124	Tuesday	7:30- 9:30	TS	315	K. Richard
					C. Stevens
EAS 200	Tues. & Thurs.	7:30- 9:30	TS	316	To be announced

*In addition to the lectures, tutorials will be arranged in these courses.

TIMETABLE/ARTS AND SCIENCE/ST. GEORGE CAMPUS (Continued)

Winter Session 1972-1973

September 11-April 13

COURSE	EVENING	TIME	BUILDING	ROOM	INSTRUCTOR
EAS 220	Tues. & Thurs.	7:30- 9:30	TS	322	S. Uyenaka
EAS 222	Monday	4:00- 6:00	TS	316	J. Brownlee
EAS 224	Monday	4:00- 6:00	TS	322	K. Tsuruta
*EAS 290	Wednesday	5:00- 7:00	TS	315	To be announced
EAS 320	Tuesday	7:30- 9:30	TS	308	K. Tsuruta
EAS 324	Monday	6:00- 7:00	TS	308	J. McMullen
	Wed. & Thurs.	5:00- 6:00	TS	308	To be announced
EAS 332	Monday	7:30- 9:30	TS	308	M. Dolezelova
	Wednesday	7:30- 8:30	TS	308	C.C. Wang
EAS 426	Wednesday	7:30- 9:30	TS	323	A. Liman
ECO 100	Wednesday	7:30- 9:30	SS	2106	G. Slasor
				2108	To be announced
				2110	To be announced
				2127	To be announced
*ECO 101	Thursday	7:30- 9:30	NU	104	J.H.A. Munro
ECO 200	Thursday	7:30- 9:30	RW	143	Y. Kotowitz
*ECO 204F	Wednesday	7:30- 9:30	MP	137	G.V. Jump
*ECO 205S	Wednesday	7:30- 9:30	MP	137	G.V. Jump
ECO 322	Tuesday	7:30- 9:30	NU	104	S. Hollander
ECO 328	Monday	7:30- 9:30	NU	104	To be announced
ECO 339F	Monday	7:30- 9:30	SS	2108	S.B. Eastman
ECO 340S	Monday	7:30- 9:30	SS	2108	S.B. Eastman
ECO 344	Tuesday	7:30- 9:30	SS	2127	To be announced
ENG 108	Wednesday	7:30- 9:30	SS	597	To be announced
				622	To be announced
				1022	To be announced
				1084	To be announced
				1086	To be announced
				1088	To be announced
ENG 200	Monday	7:30- 9:30	RW	229	To be announced
ENG 212	Wednesday	7:30- 9:30	MP	257	A. Lancashire
				373	S. Zitner
ENG 218	Tuesday	7:30- 9:30	SS	2110	R. McLeod
ENG 304	Tuesday	7:30- 9:30	MP	053	D.I.B. Smith
ENG 308	Monday	7:30- 9:30	RW	143	H.B. DeGroot
ENG 322	Thursday	7:30- 9:30	RW	142	A.H. DeQuehen
ENG 324	Tuesday	7:30- 9:30	MP	257	P.R. Allen
				373	E. Costigan
ENG 328	Tuesday	7:30- 9:30	RW	229	H. Auster
ENG 332	Thursday	7:30- 9:30	RW	229	A. Leggatt
ENG 348	Thursday	7:30- 9:30	LM	157	M.J. Sidnell
ENG 350	Tuesday	7:30- 9:30	RW	142	E. Domville
ENG 354	Monday	7:30- 9:30	RW	142	F.W. Watt
ENG 368	Wednesday	7:30- 9:30	MP	118	P. Morgan
ENG 415	Thursday	7:30- 9:30	MP	118	P.M. Hughes
ENG 467	Tuesday	7:30- 9:30	MP	118	O.H.T. Rudzik
*FAR 101	Monday	7:30- 9:30	SS	2118	To be announced
FAR 200	Wednesday	7:30- 9:30	SS	2118	To be announced
FAR 314	Monday	7:30- 9:30	SS	1069	To be announced
FAR 321	Tuesday	7:30- 9:30	SS	1069	To be announced

*In addition to the lectures, tutorials will be arranged in these courses.

TIMETABLE/ARTS AND SCIENCE/ST. GEORGE CAMPUS (Continued)

Winter Session 1972-1973

September 11-April 13

COURSE	EVENING	TIME	BUILDING	ROOM	INSTRUCTOR
FAR 326F	Thursday	7:30- 9:30	SS	1069	To be announced
FRE 120	Monday	7:30- 9:30	MP	713	M.R. Cornu
				118	D.F. Jourlait
				257	J. Orsoni
				373	D.A. Trott
FRE 140	Monday	7:30- 9:30	LM	123	R.J. LeHuenen
				155	R.A. Taylor
FRE 271	Tuesday	7:30- 9:30	LM	123	A. Stein
				155	J. Yashinsky
FRE 324	Monday	7:30- 9:30	NC	62	O.J. Miller
FRE 344	Wednesday	7:30- 9:30	NA	235	P. Perron
FRE 352	Tuesday	7:30- 9:30	MA	Round	R. Finch
FRE 364	Wednesday	7:30- 9:30	NC	74	F. Gerson
FRE 368	Tuesday	7:30- 9:30	NC	76	J.K. Gilbert
FRE 371	Wednesday	7:30- 9:30	LM	155	N. Boursier
				123	A. Chesneau
FRE 375	Thursday	7:30- 9:30	TF	H	F. DesRoches
GER 130	Monday	7:30- 9:30	NU	52	W. Bauer
GER 230	Tuesday	7:30- 9:30	NU	52	H. Wittmann
GER 310	Monday	7:30- 9:30	NA	235	H. Mayer
GER 320	Tuesday	7:30- 9:30	NA	235	G.W. Field
*GGR 100	Wednesday	7:30- 9:30	MB	131	J. Whitney
*GGR 220	Thursday	7:30- 9:30	SS	622	J. Britton
*GGR 240	Tuesday	7:30- 9:30	SS	2117	D.P. Kerr
*GGR 242	Monday	7:30- 9:30	SS	622	J. Galloway
*GGR 280	Wednesday	7:30- 9:30	SS	592	W. Dean
GGR 320F	Thursday	7:30- 9:30	SS	597	J. May
GGR 321S	Thursday	7:30- 9:30	SS	597	J. May
GGR 491	Thursday	7:30- 9:30	SS	592	A. Baker
GLG 100	Monday	6:30-10:00	MB	131	To be announced
GLL 190	Monday	7:30- 9:30	TF	E	A. Dabrowski
GRH 100	Tuesday	7:30- 9:30	RW	143	T.G. Elliott
GRH 216	Tuesday	7:30- 9:30	MP	713	C. Reid
GRK 150	Mon. & Wed.	7:00- 9:00	UC	314	G. Thaniel
*HIS 104	Monday	7:30- 9:30	SS	2110	A. Robson
*HIS 220	Thursday	7:30- 9:30	SS	1086	T.A. Sandquist
					N.P. Zacour
*HIS 230	Tuesday	7:30- 9:30	SS	1086	J.M. Beattie
					M.G. Finlayson
*HIS 241F	Tuesday	7:30- 9:30	SS	1088	R.F. Harney
HIS 242S	Tuesday	7:30- 9:30	SS	1088	M.R. Marrus
*HIS 261	Thursday	7:30- 9:30	SS	2110	P. Rutherford
HIS 302	Tuesday	7:30- 9:30	SS	2123	D.C. Higgs
*HIS 348	Monday	7:30- 9:30	SS	1084	J.K. Conway
HIS 361	Thursday	7:00-10:00	SS	1021	J.M. Bliss
HIS 368	Thursday	7:30- 9:30	SS	539	C.C. Berger
*HIS 370	Wednesday	7:30- 9:30	SS	539	W.H. Nelson
HIS 447	Tuesday	7:30- 9:30	SS	1028	J. Kornberg
HIS 455	Tuesday	7:30- 9:30	SS	2121	H.L. Dyck
HPS 200	Tuesday	7:30- 9:30	NC	524	To be announced

*In addition to the lectures, tutorials will be arranged in these courses.

TIMETABLE/ARTS AND SCIENCE/ST. GEORGE CAMPUS (Continued)

Winter Session 1972-1973

September 11-April 13

COURSE	EVENING	TIME	BUILDING	ROOM	INSTRUCTOR
INI 202	Tuesday	6:00- 8:00	SS	2102	R. Davidson
INI 300	Wednesday	7:30- 9:30	NU	104	To be announced
INI 400	Wednesday	7:30- 9:30	NU	52	J.W. Greig
INX 260	Wednesday	8:00-10:00	97 St. George		To be announced
INX 302	Thursday	7:30- 9:30	97 St. George		To be announced
INX 331	Tuesday	7:30- 9:30	97 St. George		To be announced
INX 370	Tuesday	7:30- 9:30	MS	3163	To be announced
INX 430	Monday	7:30- 9:30	97 St. George		To be announced
ISL 201F	Thursday	7:00- 9:00	TT	406	To be announced
ISL 203S	Thursday	7:00- 9:00	TT	406	To be announced
ISL 206S	Monday	7:00- 9:00	SS	2121	To be announced
ISL 214	Tuesday	7:00- 9:30	RW	141	To be announced
ISL 217F	Monday	7:00- 9:00	SS	2121	To be announced
ISL 321	Wednesday	7:00- 9:30	SS	2121	To be announced
ITA 100	Mon. & Wed.	7:00- 9:30	SS	1070	To be announced
				1072	To be announced
				1074	To be announced
ITA 110	Monday	7:30- 9:30	SS	1021	To be announced
†ITA 120Y	Monday	7:30- 9:30	SS	1028	To be announced
ITA 121	Thursday	7:30- 9:30	SS	1028	To be announced
ITA 220	Tuesday	7:30- 9:30	SS	1021	To be announced
ITA 221	Tuesday	7:30- 9:30	SS	1032	To be announced
ITA 224F	Monday	7:30- 9:30	SS	1032	To be announced
ITA 225S	Monday	7:30- 9:30	SS	1032	To be announced
ITA 320	Wednesday	7:30- 9:30	SS	1028	To be announced
ITA 321	Thursday	7:30- 9:30	SS	1032	To be announced
ITA 323S	Tuesday	7:30- 9:30	SS	1067	To be announced
ITA 423F	Wednesday	7:30- 9:30	SS	1067	To be announced
JAL 100	Monday	7:30- 9:30	SS	2102	S.A. Sper
LAT 100	Wednesday	7:00- 9:30	SS	2119	R. Beck
LAT 222	Tuesday	7:30- 9:30	SS	2120	R.J. Tarrant
LIN 230	Tuesday	7:30- 9:30	SS	597	J.K. Chambers
LIN 326	Wednesday	7:30- 9:30	LM	158	R.A. Wright
*MAT 130	Thursday	7:30- 9:30	SS	2102	P. Rosenthal
*MAT 135	Thursday	7:30- 9:30	SS	2117	S. Pierce
*MAT 225	Thursday	7:30- 9:30	SS	1088	M. Mather
*MAT 230	Thursday	7:30- 9:30	SS	2108	D.V. Anderson
MUS 100	Monday	7:30- 9:30	EJ	116	To be announced
MUS 222	Mon. & Wed.	7:30- 9:30	EJ	310	To be announced
MUS 223	Wednesday	7:30- 9:30	EJ	116	To be announced
NES 142	Thursday	6:30- 9:30	SS	2120	L.D. Levine
NES 242	Wednesday	7:30- 9:30	SS	2042	To be announced
NES 271	Monday	7:30- 9:30	SS	2042	D.B. Redford
PHI 210	Tuesday	7:30- 9:30	TF	D	B.F. Brown
PHI 243F	Wednesday	7:30- 9:30	TF	B	E.J. Kremer
PHI 245S	Wednesday	7:30- 9:30	TF	B	E.J. Kremer
*PHL 101	Tuesday	7:30- 9:30	MS	3153	J.T. Stevenson
PHL 200S	Tuesday	7:30- 9:30	LM	157	D. Goldstick
PHL 201F	Tuesday	7:30- 9:30	LM	157	D. Goldstick

†Meets on September 11, and on alternate weeks thereafter.

*In addition to the lectures, tutorials will be arranged in these courses,

TIMETABLE/ARTS AND SCIENCE/ST. GEORGE CAMPUS (Continued)

Winter Session 1972-1973

September 11-April 13

COURSE	EVENING	TIME	BUILDING	ROOM	INSTRUCTOR
PHL 202S	Wednesday	7:30- 9:30	LA	203	H. Hardy
PHL 230S	Monday	7:30- 9:30	RW	141	To be announced
PHL 240F	Monday	7:30- 9:30	LM	158	D.P. Gauthier
PHL 241S	Monday	7:30- 9:30	LM	158	D.P. Gauthier
PHL 250F	Wednesday	7:30- 9:30	RW	141	H.G. Herzberger
PHL 260F	Thursday	7:30- 9:30	NA	235	H. Pietersma
PHL 261S	Thursday	7:30- 9:30	RW	141	To be announced
PHL 312F	Monday	7:30- 9:30	RW	141	R.E. Allen
PHY 130	Tuesday	6:00- 9:30	MP	137	To be announced
PHY 230	Monday	6:00- 9:30	MP	134	A.W. Key
PHY 301	Wednesday	6:30- 9:30	MP	713	T.S. Yoon
PHY 311	Thursday	6:00- 9:30	MP	713	To be announced
*POL 100	Monday	7:30- 9:30	MP	102	To be announced
*POL 101	Monday	7:30- 9:30	MP	137	To be announced
POL 201	Thursday	7:30- 9:30	MP	053	To be announced
POL 204	Monday	7:30- 9:30	MS	7231	D.V. Schwartz
POL 208	Tuesday	7:30- 9:30	MS	7231	B. Kovrig
POL 302	Monday	7:30- 9:30	SS	1085	R. Gregor
POL 308	Tuesday	7:30- 9:30	TS	323	P. Silcox
*POL 320	Thursday	7:30- 9:30	TS	323	To be announced
POL 412	Thursday	7:30- 9:30	MP	257	To be announced
PRT 100	Tuesday	6:30- 9:30	SS	539	To be announced
PSY 100	Tuesday	7:00-10:00	SS	2108	J.B. Gilmore
				622	To be announced
				1071	To be announced
				1087	To be announced
PSY 202F	Monday	7:00-10:00	SS	1087	To be announced
PSY 202S	Monday	7:00-10:00	SS	1087	M.W. Laurence
PSY 203F	Monday	7:00-10:00	SS	1083	A.J. Arrowood
PSY 203S	Monday	7:00-10:00	SS	1083	A.N. Doob
PSY 204F	Wednesday	7:00-10:00	SS	2102	R.O. Kroger
PSY 207F	Wednesday	7:00-10:00	SS	1087	N.J. Slamecka
PSY 209F	Monday	7:00-10:00	SS	1071	J.A. Satterberg
PSY 211F	Monday	7:00-10:00	SS	592	G.C. Walters
PSY 220F	Wednesday	7:00-10:00	SS	1083	A.M. Wall
PSY 220S	Wednesday	7:00-10:00	SS	1083	A.M. Wall
PSY 221F	Tuesday	7:00-10:00	SS	1083	J. Ross
PSY 221S	Tuesday	7:00-10:00	SS	1083	J. Ross
PSY 223F	Thursday	7:00-10:00	SS	1083	G.B. Thornton
PSY 224F	Tuesday	7:00-10:00	SS	1085	To be announced
PSY 230F	Thursday	7:00-10:00	SS	1085	T. Grusec
PSY 243S	Thursday	7:00-10:00	SS	1083	G.B. Thornton
PSY 301S	Wednesday	7:00-10:00	SS	1085	M.W. Laurence
PSY 304S	Tuesday	7:00-10:00	SS	1085	B. Bragg
PSY 306S	Wednesday	7:00-10:00	SS	1087	R.O. Kroger
PSY 307S	Thursday	7:00-10:00	SS	1085	To be announced
PSY 308S	Thursday	7:00-10:00	SS	1071	To be announced
PSY 309S	Thursday	7:00-10:00	SS	1087	N.J. Slamecka
PSY 319F	Wednesday	7:00-10:00	SS	1085	J.A. Satterberg
PSY 320	Monday	7:00-10:00	SS	1067	L. de Toledo
PSY 321	Monday	7:00-10:00	SS	2119	G.B. Thornton

*In addition to the lectures, tutorials will be arranged in these courses.

TIMETABLE/ARTS AND SCIENCE/ST. GEORGE CAMPUS (Concluded)

Winter Session 1972-1973

September 11-April 13

COURSE	EVENING	TIME	BUILDING	ROOM	INSTRUCTOR
PSY 330F	Tuesday	7:00-10:00	LM	158	C.D. Webster
PSY 340F	Thursday	7:00-10:00	SS	1087	To be announced
REL 160	Tuesday	7:30- 9:30	MS	2173	To be announced
REL 203	Tuesday	7:30- 9:30	TF	K	D.E. Belyea
REL 220	Monday	7:30- 9:30	SS	2117	To be announced
REL 304F	Monday	7:30- 9:30	NA	113	D.V. Wade
REL 332S	Monday	7:30- 9:30	NA	113	D.V. Wade
SIS 100	Thursday	7:30- 9:30	TS	308	To be announced
SIS 110	Mon. & Wed.	7:30- 9:30	SS	2123	To be announced
SIS 160	Tuesday	7:30- 9:30	SS	2114	To be announced
SIS 226	Tuesday	7:30- 9:30	SS	2112	To be announced
SIS 260	Thursday	7:30- 9:30	SS	2114	To be announced
SLA 100	Mon. & Wed.	7:00- 9:30	SS	2115	C.V. Ponomareff
SLA 208	Tues. & Thurs.	7:30- 9:30	SS	2115	To be announced
SLA 220	Mon. & Wed.	7:30- 9:30	SS	2116	G. Kruberg
SLA 240	Tuesday	7:30- 9:30	SS	2119	K. Lantz
SLA 320	Mon. & Wed.	7:30- 9:30	SS	2120	I. Evreinova
*SOC 101	Tuesday	7:30- 9:30	SS	2118	J. Joyner
				2102	R. Lucas
				2135	To be announced
*SOC 202	Wednesday	7:30- 9:30	MP	102	B. Baldus
*SOC 203	Wednesday	7:30- 9:30	MS	2173	W. Phillips
*SOC 205	Thursday	7:30- 9:30	LM	155	E. Derow
*SOC 207	Thursday	7:30- 9:30	MP	373	O. Hall
*SOC 212	Tuesday	7:30- 9:30	LM	159	To be announced
*SOC 301	Tuesday	7:30- 9:30	MS	3171	D.W. Magill
*SOC 302	Wednesday	7:00-10:00	MS	3171	N.W. Bell
					J.L. Turk
*SOC 305	Wednesday	7:30- 9:30	MP	053	J. Simpson
*SOC 311	Wednesday	7:30- 9:30	MS	7231	A.H. Smith
SPA 100	Tues. & Thurs.	7:00- 9:30	SS	1022	To be announced
				1072	To be announced
				1074	To be announced
				1084	To be announced
SPA 200	Monday	7:30- 9:30	SS	590	To be announced
SPA 220	Monday	7:30- 9:30	SS	504	To be announced
				539	To be announced
SPA 246F	Wednesday	7:30- 9:30	SS	1021	To be announced
SPA 256S	Wednesday	7:30- 9:30	SS	1021	To be announced
‡SPA 320Y	Tuesday	7:00- 9:30	SS	504	To be announced
SPA 333F	Wednesday	7:30- 9:30	SS	504	To be announced
SPA 381S	Wednesday	7:30- 9:30	SS	504	To be announced
†SPA 420Y	Tuesday	7:00- 9:30	SS	504	To be announced
SPA 436S	Thursday	7:30- 9:30	SS	504	To be announced
SPA 486F	Thursday	7:30- 9:30	SS	504	To be announced
*STA 222	Monday	7:30- 9:30	SS	1088	W.E. Grasham
*STA 232	Monday	7:30- 9:30	SS	1086	M. Srivastava
ZOO 212	Tuesday	7:30- 9:30	RW	117	Y. Masui
	Thursday	7:00-10:00			C.M. Sullivan

‡Meets on September 19, and on alternate weeks thereafter.

†Meets on September 12, and on alternate weeks thereafter.

*In addition to the lectures, tutorials will be arranged in these courses.

FOUR YEAR PROGRAMME

Courses will be added to this programme each session

Summer Evening Session 1973	Summer Day Session 1973	Winter Session 1973-1974	Summer Evening Session 1974	Summer Day Session 1974	Winter Session 1974-1975
ANT 100	ANT 100	ANT 100	ANT 100	ANT 100	ANT 100
ECO 100	ECO 100	AST 100	ECO 100	ECO 100	AST 100
ENG 108	ENG 108	COM 100	ENG 108	ENG 108	COM 100
ENG 212	ENG 200	COM 211F	ENG 152	ENG 212	COM 221F
ENG 324	ENG 212	COM 222S	ENG 218	ENG 328	COM 222S
ENG 348	ENG 218	COM 300	ENG 328	ENG 348	COM 300
FRE 120	ENG 328	ECO 100	FRE 120	FRE 120	ECO 100
FRE 271	FAR 200	ECO 200	FRE 271	FRE 271	ECO 200
FRE 330	FRE 120	ENG 108	FRE 364	FRE 354	ENG 108
FRE 371	FRE 271	ENG 152	FRE 371	FRE 362	ENG 200
FRE 372	FRE 364	ENG 204	GER 230	FRE 371	ENG 212
GER 130	FRE 371	ENG 212	*HIS	FRE 372	ENG 218
*HIS	FRE 373	ENG 302	ITA 100	GER 130	ENG 304
ITA 100	GER 120	ENG 306	ITA 220	GER 322	ENG 308
ITA 220	GER 230	ENG 308	ITA 224Y	*HIS	ENG 322
ITA 222	*HIS	ENG 312	ITA 320	ITA 100	ENG 324
ITA 321	ITA 100	ENG 324	ITA 420	ITA 120Y	ENG 328
ITA 428Y	ITA 120Y	ENG 328	ITA 423Y	ITA 121	ENG 332
MAT 110	ITA 122Y	ENG 338	ITA 426Y	ITA 220	ENG 348
POL 100	ITA 220	ENG 346	MAT 110	ITA 222	ENG 350
SPA 100	ITA 223Y	ENG 348	POL 100	ITA 321	ENG 354
SPA 220	ITA 320	ENG 352	SPA 100	ITA 323Y	ENG 368
SPA 280Y	ITA 325Y	ENG 356	SPA 220	MAT 130	FRE 120
SPA 320Y	ITA 421Y	FAR 102	SPA 225Y	POL 100	FRE 140
SPA 353Y	ITA 430Y	FAR 201	SPA 256Y	SPA 100	FRE 271
SPA 446Y	MAT 130	FRE 120	SPA 320Y	SPA 220	FRE 320
SPA 466Y	POL 100	FRE 140	SPA 333Y	SPA 246Y	FRE 342
	SPA 100	FRE 271	SPA 420Y	SPA 280Y	FRE 354
	SPA 220	FRE 316		SPA 320Y	FRE 364
	SPA 225Y	FRE 322		SPA 343Y	FRE 368
	SPA 320Y	FRE 330		SPA 381Y	FRE 371
	SPA 343Y	FRE 346		SPA 461Y	GER 130
	SPA 420Y	FRE 352		SPA 482Y	GER 230
	SPA 425Y	FRE 366			GER 310
	SPA 486Y	FRE 371			GER 320
		FRE 372			*HIS
		GER 120			ITA 100
		GER 210			ITA 120Y
		GER 220			ITA 121
		*HIS			ITA 220
		ITA 100			ITA 221
		ITA 120Y			ITA 222
		ITA 122Y			ITA 320
		ITA 220			ITA 321
		ITA 221			ITA 325Y
		ITA 223Y			ITA 421Y
		ITA 320			ITA 430Y
		ITA 321			MAT 130
		ITA 424Y			MAT 230

*The Department of History intends to offer the following courses at least once every twelve months: HIS 220, 230, 240, 241F, 242S, 250, 261, 262, 271, 290.

FOUR YEAR PROGRAMME (Continued)

Courses will be added to this programme each session

Summer Evening Session 1973	Summer Day Session 1973	Winter Session 1973-1974	Summer Evening Session 1974	Summer Day Session 1974	Winter Session 1974-1975
		MAT 130			POL 100
		MAT 230			POL 101
		POL 100			POL 201
		POL 200			POL 204
		POL 203			POL 320
		SLA 100			SPA 100
		SLA 220			SPA 220
		SLA 320			SPA 225Y
		SLA 340			SPA 256Y
		SPA 100			SPA 320Y
		SPA 220			SPA 343Y
		SPA 236Y			SPA 420Y
		SPA 320Y			SPA 425Y
		SPA 353Y			SPA 446Y
		SPA 380Y			SPA 466Y
		SPA 420Y			
		SPA 456Y			
		SPA 484Y			

Summer Evening Session 1975	Summer Day Session 1975	Winter Session 1975-1976	Summer Evening Session 1976	Summer Day Session 1976	Winter Session 1976-1977
ANT 100	ANT 100	ANT 100	ANT 100	ANT 100	ANT 100
ECO 100	ECO 100	AST 100	ECO 100	ECO 100	AST 100
ENG 108	ENG 108	COM 100	ENG 108	ENG 108	COM 100
ENG 212	ENG 212	COM 221F	ENG 212	ENG 212	COM 221F
ENG 324	ENG 218	COM 222S	FRE 120	FRE 120	COM 222S
ENG 348	ENG 328	COM 300	FRE 271	FRE 271	COM 300
FRE 120	FRE 120	ECO 100	FRE 371	FRE 371	ECO 100
FRE 271	FRE 271	ECO 200	*HIS	GER 130	ECO 200
FRE 352	FRE 330	ENG 108	ITA 100	GER 230	ENG 108
FRE 371	FRE 371	ENG 212	ITA 220	*HIS	ENG 200
*HIS	FRE 372	ENG 302	ITA 222	ITA 100	ENG 212
ITA 100	GER 130	ENG 306	ITA 320	ITA 120Y	ENG 304
ITA 220	GER 230	ENG 308	ITA 426Y	ITA 121	ENG 308
ITA 321	*HIS	ENG 312	MAT 110	ITA 220	ENG 322
ITA 323Y	ITA 100	ENG 324	POL 100	ITA 223Y	ENG 324

*The Department of History intends to offer the following courses at least once every twelve months: HIS 220, 230, 240, 241F, 242S, 250, 261, 262, 271, 290.

FOUR YEAR PROGRAMME (Continued)

Courses will be added to this programme each session

Summer Evening Session 1975	Summer Day Session 1975	Winter Session 1975-1976	Summer Evening Session 1976	Summer Day Session 1976	Winter Session 1976-1977
MAT 110	ITA 120Y	ENG 328	SPA 100	ITA 321	ENG 328
POL 100	ITA 122Y	ENG 338	SPA 220	ITA 325Y	ENG 348
SPA 100	ITA 220	ENG 346	SPA 320Y	ITA 421Y	ENG 350
SPA 220	ITA 223Y	ENG 348	SPA 343Y	MAT 130	ENG 354
SPA 280Y	ITA 224Y	ENG 352	SPA 381Y	POL 100	ENG 368
SPA 320Y	ITA 320	ENG 356	SPA 420Y	SPA 100	FRE 120
SPA 353Y	ITA 424Y	FRE 120	SPA 461Y	SPA 220	FRE 140
SPA 456Y	ITA 428Y	FRE 140	SPA 482Y	SPA 225Y	FRE 271
	MAT 130	FRE 271		SPA 256Y	FRE 346
	POL 100	FRE 344		SPA 280Y	FRE 366
	SPA 100	FRE 362		SPA 320Y	FRE 371
	SPA 220	FRE 371		SPA 353Y	GER 130
	SPA 320Y	GER 120		SPA 380Y	GER 230
	SPA 333Y	GER 210		SPA 446Y	GER 310
	SPA 420Y	GER 220		SPA 456Y	GER 320
	SPA 436Y	*HIS		SPA 466Y	*HIS
	SPA 484Y	ITA 100			ITA 100
		ITA 120Y			ITA 120Y
		ITA 122Y			ITA 121
		ITA 220			ITA 220
		ITA 221			ITA 221
		ITA 224Y			ITA 223Y
		ITA 320			ITA 320
		ITA 321			ITA 321
		ITA 420			ITA 323Y
		ITA 422Y			ITA 424Y
		MAT 130			ITA 428Y
		MAT 230			MAT 130
		POL 100			MAT 230
		POL 200			POL 100
		POL 203			POL 101
		SPA 100			POL 201
		SPA 220			POL 204
		SPA 246Y			POL 320
		SPA 280Y			SPA 100
		SPA 320Y			SPA 220
		SPA 353Y			SPA 256Y
		SPA 420Y			SPA 320Y
		SPA 486Y			SPA 333Y
					SPA 420Y
					SPA 436Y
					SPA 482Y

*The Department of History intends to offer the following courses at least once every twelve months: HIS 220, 230, 240, 241F, 242S, 250, 261, 262, 271, 290.

Faculty of Applied Science and Engineering

The First Year Engineering Curriculum is offered by the Faculty of Applied Science and Engineering through the Division of University Extension for students interested in part-time evening study in order to fulfil the first year requirements for a Bachelor of Applied Science (BASC) degree. The number of applicants accepted for the First Year Engineering Programme will be limited.

Only the *first year* of the four year Engineering curriculum is available through the Division of University Extension. Successful completion of the First Year Programme qualifies the student for entry into second year full time in all courses, except Engineering Science, in the Faculty of Applied Science and Engineering.

In second year, students will elect one of the following programmes – Chemical Engineering, Civil Engineering, Electrical Engineering, Geological Engineering, Industrial Engineering, Mechanical Engineering, Metallurgy, and Materials Science. For further information on second, third, and fourth year, please refer to the Calendar of the Faculty of Applied Science and Engineering 1972–73. The right is reserved to limit the number of students admitted to any programme in the Faculty of Applied Science and Engineering.

The Winter Session in the Faculty of Applied Science and Engineering is divided into a Fall and a Spring term. All the Engineering courses will be one term in duration during the Winter Session; there will be final examinations at the end of each term. Some courses may require the student to attend two evenings a week for the term. Eight compulsory Engineering courses and two half-courses (or the equivalent) from the Faculty of Arts and Science, constitute a complete first year which must be completed within a period of four calendar years with an overall average of not less than 60%.

FIRST YEAR REQUIREMENTS

Applied Mechanics (CIV 100F)

Computer Programming (APS 100F/S)

Chemistry (CHE 100F)

Electricity & Magnetism (ELE 121S)

Engineering Graphics (CIV 135F/S)

Mathematics I (MAT 180F)

Mathematics II (MAT 181S)

Arts and Science Electives – two half-courses or the equivalent

Technical Elective – Applied Physical Geology (GLG 180F/S), or
Structure and Properties of Matter (MMS 100F/S)

GENERAL REGULATIONS

1 Course Selection

- a In order to avoid timetable conflicts which may delay the completion of the requirements for the Bachelor's degree, courses should be selected carefully and where necessary approved by the Faculty of Applied Science and Engineering.
- b Mathematics I is a prerequisite, or co-requisite for Mathematics II, Applied Mechanics, Chemistry, Electricity and Magnetism, and Computer Programming.
- c The Mathematics courses must be taken when first available and must be completed within the first two calendar years.
- d Two non-technical half-courses or the equivalent must be chosen from those courses offered by the Faculty of Arts and Science. The student's choice must be approved by the Faculty of Applied Science and Engineering. In general, acceptable non-technical electives have as their central theme the study of man as an individual or of man as a social being.

2 Course Load

- a Students must take at least two courses in their first calendar year of studies.
- b Part-time Engineering students in the Division of University Extension may register for a maximum of two courses in the Fall term of the Winter Session, two courses in the Spring term of the Winter Session, and two courses in the Summer Session (Summer Evening Session and/or Summer Day Session).

3 Time Limit

The First Year in Engineering must be completed within a period of four calendar years with an overall average of not less than 60%.

4 Transfer to Full Time Study

Those students who will be eligible to transfer into full time studies (Second Year) for the Winter Session 1972-73 should notify the Assistant Director, Division of University Extension before June 1, 1972.

5 Academic Standing and Examinations

- a At any time in his programme the student's performance will be judged to be satisfactory if his overall average is more than the smaller of 60% or $(48 + 2N)\%$ where N is the total number of courses which he has either completed or from which he has been exempted. This overall average requirement is shown in the following table:

Minimum Overall Average		Minimum Overall Average	
N		N	
1 course	50%	4 courses	56%
2 courses	52%	5 courses	58%
3 courses	54%	6 courses or more	60%

- b A student who has completed one or two courses and has an overall average below the minimum required overall average, will be warned by the Secretary of the Faculty of Applied Science and Engineering that his work is unsatisfactory.
- c A student who has done more than two courses and has an overall average below the minimum required overall average, will be required to raise his average to at least the minimum by repeating courses as noted in 5 (d). Failure to do so, will result in the student being required to withdraw from the Faculty of Applied Science and Engineering.
- d An Engineering Student may repeat a total of two courses in order to raise his overall average. A course may be repeated only once.
- e A student should submit to Council immediately after its occurrence, evidence of any illness or mishap which occurs during the term. Any petition for leniency on account of such incidents may be refused consideration if received after the third day following the last day of examinations.

COURSE DESCRIPTIONS

APS 100Y/S Computer Programming

The digital computing system as a device for numeric and non numeric transformation of numbers and symbols. Constants, variables, and arrays; arithmetic and logical expressions; functions. Algorithms, represented by flow chart and computer languages. Conditional branching and looping; iteration; sub-programmes; input/output. All of the above will be illustrated and implemented using the FORTRAN IV language. Applications will include root finding, numerical integration, sorting, iterative design and graph plotting.

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

CHE 100F Chemistry

An introductory course in physical chemistry involving problems dealing with industrial and engineering applications. Topics discussed are stoichiometry and the mole concept, ideal and real gas behaviour, phase equilibria and colligative properties of solutions, chemical and ionic equilibrium, electrochemistry, thermochemistry and chemical kinetics.

The lecture course is supplemented by a series of laboratory experiments illustrating the principles discussed. Experiments include a gas-chromatographic study of fuel combustion, caustic chlorine and sulphuric acid pilot plants, freezing point depression, molecular weight determination, vapour pressure, steam and binary distillations, qualitative analysis, heat of neutralization, kinetics, corrosion, pH and electrochemistry.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

CIV 100F Applied Mechanics

Statics: The principles of statics are applied to the composition and resolution of forces, moments and couples. The equilibrium states of frames and

machines are examined. The distributed load concept is applied to finding centroids, centers of mass and fluid pressure. Dynamics: Applications of the principles of dynamics are discussed for motion on straight and curved paths. Work, energy, power and momentum concepts are applied to particles, systems of particles and rigid bodies. Simpler applications in relative motion are considered. Throughout statics and dynamics the free body concept is emphasized and vector algebra is used where it is most useful.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

CIV135F/S **Engineering Graphics**

A course to provide an introduction to graphical communication in contemporary engineering practice. Topics in descriptive geometry and engineering drawing include orthographic projection, single view drawings, spatial analysis, developments and intersections, sketching, preparation of graphs and nomographs and the reproduction of drawings.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

ELE 121S **Electricity and Magnetism**

A basic course in electricity and magnetism including electric forces and fields, analysis of direct-current circuits, magnetic forces and fields, electromagnetic induction, and an introduction to the conductive, magnetic and dielectric properties of materials.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

GLG 180Y **Applied Physical Geology**

Fundamentals of physical geology as related to engineering problems and practice. Configuration of the planet and the effects of external and internal processes that act upon it; influence of earth processes as a factor in the design of engineering structures. Students will gain a knowledge of earth materials – their occurrence and uses.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

MAT 180F/Y **Mathematics I**

Calculus; limits, derivatives, integrals and their properties with applications, elementary functions. Basic concepts of linear algebra.

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

MAT 181S **Mathematics II**

Vectors, matrices, linear systems, transformations, eigenvalues, linear programming, complex numbers. Applications of linear algebra and calculus.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

MMS 100S **Structure and Properties of Matter**

An introduction to the structure and properties of the different states of matter in terms of the interatomic potential and thermal energy. A comparison of solids, liquids and gases, with special attention being directed towards crystalline solids. Specific topics considered include

elasticity, viscosity, surface properties and capillarity, wave motion and the thermal and optical properties of matter. Textbook: *Gases, Liquids and Solids* – Tabor.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

TIMETABLE/APPLIED SCIENCE AND ENGINEERING

Open to Engineering students only

Summer Evening Session 1972

May 15–August 18

COURSE	EVENING	TIME	BUILDING	ROOM
APS 100Y	Monday	6:30–10:00	GB	405
MAT 180Y	Tues. & Thurs.	6:30– 9:30	GB	405
GLG 180Y	Wednesday	6:00–10:00	MB	130

Winter Session 1972–73 Fall Term

September 6–December 20

COURSE	EVENING	TIME	BUILDING	ROOM
CHE 100F	Mon. & Wed.	7:00– 9:30	WB	1033 & 564
CIV 100F	Tuesday	6:30–10:30	GB	405
MAT 180F	Mon. & Wed.	7:00– 9:30	GB	405

Winter Session 1972–73 Spring Term

January 9–April 30

COURSE	EVENING	TIME	BUILDING	ROOM
APS 100S	Monday	6:30– 9:30	GB	404
ELE 121S	Tuesday	6:30–10:30	GB	405
MAT 181S	Mon. & Wed.	7:00– 9:30	GB	405
MMS 100S	Thursday	6:00–10:00	GB	405

Key to Building Abbreviations:

GB Galbraith Building, 35 St. George Street

MB Mining Building, 170 College Street

WB Wallberg Building, 200 College Street

The College of Education

BACHELOR OF EDUCATION PROGRAMMES

Bachelor of Education Degree Programme for graduates of The College of Education who were awarded the High School Assistant's Certificate prior to May 1970:

Commencing in September 1970, the Division of University Extension in co-operation with The College of Education will offer courses in summer and winter sessions which will enable graduates of the one-year College programme prior to May 1970, leading to the Interim High School Assistant's Certificate, Type B, to qualify for the Bachelor of Education Degree.

ADMISSION REQUIREMENTS

A candidate must submit to the Office of Admissions, University of Toronto, proof of:

- 1 graduation from The College of Education in a One-Year High School Assistants' programme, Type B, prior to May 1970
- 2 possession of the Permanent High School Assistant's Certificate

REQUIREMENTS FOR THE DEGREE

A candidate must complete two of the courses in the present one-year programme leading to the Bachelor of Education Degree, namely:

- 1 one course selected from a list of offerings in Part II, Educational Theory
- 2 one course selected from a list of offerings in Part IV, Additional Related Courses

NOTE: This programme will not be offered after July 1, 1974.

New Programme

Bachelor of Education Degree Programme for holders of Ontario permanent basic teaching certificates:

Commencing July 1971, the Division of University Extension in co-operation with The College of Education will offer courses in summer and winter sessions which will enable graduates who meet the admission requirements outlined below to qualify for the Bachelor of Education Degree.

ADMISSIONS REQUIREMENTS

A candidate must submit to the Office of Admissions, University of Toronto, proof that he holds:

- 1 an approved university degree from an accredited university
- 2 a permanent basic Ontario teaching certificate

REQUIREMENTS FOR THE DEGREE

A candidate must complete four of the courses in the present one-year programme leading to the Bachelor of Education Degree, namely:

- 1 one course selected from a list of offerings in Part II, Educational Theory

- 2 one course selected from a list of offerings in Part IV, Additional Related Courses
- 3 two additional courses selected from Part II, Educational Theory or Part IV, Additional Related Courses

GENERAL REGULATIONS

- 1 The Summer Day Session, beginning in 1971, will be of six weeks duration.
- 2 The course in each subject will be thirty class hours.
- 3 The academic fee for each course is \$47.50.
- 4 The maximum number of courses that may be taken in the fall term of the Winter Evening Session is two. The maximum number of courses that may be taken in the spring term of the Winter Evening Session is two. The maximum number of courses that may be taken in the Summer Day Session is two.
- 5 It may be necessary to limit enrolment in certain courses.
- 6 A course will not be offered unless sufficient candidates apply.

CONDITIONS FOR ACADEMIC STANDING

The standing of candidates will be determined by the combined results of term work and of the final examinations in the subjects of Parts II and IV. A candidate who withdraws from attendance in any programme listed in The College of Education Calendar may apply for re-admission in a subsequent year on petition to The Council of The College.

COURSE DESCRIPTIONS

Part II Educational Theory

EDU 202 **Programme Development**

An examination of current theory and practice in curriculum design and their relationship to teaching and school organization.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EDU 204 **The Individual Student and the School Programme**

School programmes and practices which meet individual differences among students. A general study will be made of innovative teaching and organizational patterns, including particularly the non-graded school, credit organization, house plans, team teaching, independent study, and other related topics

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EDU 205 **Administration in the Modern School**

A practical study of the use and organization of school resources and services in providing an effective educational programme. Emphasis will

be placed on the role of the teacher in phases of school operation such as discipline, staff relationships, organization of classes, individualizing instruction, evaluation procedures, and the design and implementation of overall school programmes.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EDU 206 Evaluation: Measuring Student Performance

A study of current evaluation practices in the schools. The course will develop some of the theoretical issues underlying evaluation methods, the design and marking of a wide variety of testing instruments, including essay, objective, oral, project, and self-assessment. The fair assessment of individuals, comprehensive systems for schools, distinctions between subjects, home reporting, concepts of promotion and failure, and grading systems will also be considered.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EDU 230 Psychology Applied to Education

Open to all students. Designed to show relevance of general Psychology to teaching. Provides an overview of the areas of Psychology related to education and teaching; problems in human communication, role of feedback, non-verbal communication, mass media, T.V., radio. Modern theories of learning will be examined and compared; the relevance of learning theory to motivation, aptitudes and attitudes, learning discrimination and skills, the slow learner, development, maturation and special education, research in education, programmed learning and computer-assisted instruction.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

EDU 231 The Adolescent – At Home, in School and in the Community

The adolescent period; adolescent needs and processes of adjustment; the adolescent and social class; adolescent-adult relationships; the adolescent and his peer group; physical development; intellectual development; development of interests, attitudes and values; heterosexual development of adolescents; adolescent disciplinary problems, adolescent delinquency.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

EDU 262 Modern Philosophy and Education

A course dealing with such key problems as human freedom, coercion in the classroom, the problem of absurdity, social philosophy and educational theory, approaches to student-centred education, and the influence of modern philosophy on aims and methodology in education. Selected modern philosophical works will be examined. Students are encouraged to consider conflicting viewpoints and develop their own positions.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EDU 264 School and Society

A course involving a consideration of such problems as socio-cultural influences on educational achievement, value conflicts (between generations and among socio-economic classes), and the conflicting functions of the

school as an institution for transmitting the cultural heritage as well as criticizing it. An analysis of these problems will uncover such issues of current concern to schools and teachers as 'the generation gap,' 'educational control,' 'student power.'

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EDU 268 **Authority and Freedom in School**

Can an ideal of individual freedom be supported? Can authority be justified? Does the ideal of individual freedom preclude the exercise of authority? Should the school enforce a prevailing moral code? Can a school be amoral? Is 'compulsory education' a contradiction? Why bother being ethical? This course will attempt to get at the roots of human ethical valuing and thereby illumine, and confront one with, the moral dimension of the school.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Part IV Additional Related Courses

EDU 104 **Curriculum Theory and Design: A Research Seminar**

Enquiry into the theory and design of a curriculum and the examination of curriculum projects in the field of social studies and geography at the elementary and secondary school levels.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

EDU 105 **Current Health Problems in North American Society**

A survey course including lectures and seminars related to such health areas as cardiovascular disease, mental health, air and water pollution, consumer health, drugs, and sex education.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

EDU 106 **Computers in Education**

A course designed to study the use of the computer as an instructional and administrative aid in education. Areas to be discussed include: computer-assisted instruction, test scoring, item analysis, curriculum, educational research, student accounting, and other student-oriented areas. Emphasis is on the computer as a problem-solving tool. Prior computer courses or knowledge is not required. Access to the computer centre will be available to students for class-assigned and other approved projects.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EDU 107 **Educational Media**

A study of the basic principles of communication: the use of the various media such as film projectors, tape recorders and television will be a major part of the course.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

EDU 109 **Environmental Studies**

From the areas of freshwater ecology, terrestrial ecology, soil ecology, environmental pollution, and urban studies, material is selected that can be

used to supplement existing programmes in schools or to build an interdisciplinary course in Environmental Studies. This course has a science base. Field experience is provided.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EDU 110 Game Theory and Simulation in Relation to Learning

An introduction to game theory and simulation as an approach to learning in geography and social science.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

EDU 112 Introduction to Child Psychology

Motivation; why children learn; physical characteristics and school behaviour; children's abilities; children as social creatures; personality adjustment.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

EDU 115 Outdoor Education

An introductory course emphasizing the use of the outdoor environment as an educational media. An interdisciplinary programme which includes lectures and seminars and devotes a considerable amount of time to field work.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EDU 124 Educational Tests and Measurements

A course emphasizing the practical approach to tests and measurements. Students will be required to construct tests and use the computer to evaluate their results. Other areas of study include: techniques of measurement; test construction; application of testing; concepts of educational measurement. Computer training or experience not essential.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

EDU 136 Problems in Canadian Education

A reading-discussion course where students will select for individual study a particular problem or theme in the history of Canadian education. For example: technical and vocational education, the kindergarten movement, progressive education, ethnic groups and assimilation, urbanization, rural problems, the role of the state, or the changes that have taken place in the aims and content of certain school subject areas such as health education, physical education, history, literature, mathematics or the sciences.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

EDU 140 Science in the Elementary School

A study of the science programmes currently used in elementary schools; teaching strategies and procedures specific to age level; correlation of Science in the senior elementary grades and the junior secondary grades.

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

EDU 144 Child Study in Home Economics

A course exploring the place of children in the Canadian family and society, with emphasis on environment, family systems, education and

patterns of socializing. This course is offered in co-operation with the Institute of Child Study.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

EDU 150 The Contemporary School Counsellor

This course brings to the practising educator (teacher, principal, supervisor) a contemporary look at the role of the counsellor in the school and acquaints him with current issues in guidance and counselling. Topics to be dealt with include: the guidance movement; philosophical and sociological foundations of guidance; the counsellor as a consultant; the counsellor's relationship to the community; ethical and legal responsibilities of the counsellor; accountability and counsellor performance; current social problems and counsellor response; the counsellor and the changing world of work.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

EDU 151 Affective Learning through Physical Education

A course designed to study student motivation, emotions, aspirations, values, self-concept and some other factors affecting student behaviour in the learning process. Current teaching styles including command, discovery, reciprocal and problem solving will be examined by means of video-tape, observation and mutual evaluation of teacher behaviour.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

EDU 153 Research and Development Programme in Business Education

An intensive study of the role of the student of Business Education in co-operative plans for which subject credit is given for business participation in lieu of classroom instruction. The survey portion of the course will be a comparative study of all programmes now operative. It will culminate in the establishment of guide lines for a modified programme. This course may be taken only by candidates in the Bachelor of Education by Extension programme and will be offered starting January 1973.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

TIMETABLE/THE COLLEGE OF EDUCATION

These courses may be credited only towards the Bachelor of Education degree

Summer Day Session 1972

July 4–August 11

COURSE	TIME	INSTRUCTOR
EDU 106	9:00–10:00	L.J. LaFave
EDU 109	10:00–11:00	W.A. Andrews
EDU 112	9:00–10:00	C. Tan-Willman
*EDU 115	To be announced	D.B. Brady
EDU 140	11:00–12:00	R.G. Casson
EDU 144	10:00–11:00	M.F. Grapko
EDU 202	2:00– 3:00	R.A. Martin
EDU 204	10:00–11:00	V.K. Gilbert
EDU 205	1:00– 2:00	To be announced
EDU 206	12:00– 1:00	J.F. Flowers
EDU 231	1:00– 2:00	A.J. Zimmerman
EDU 262	11:00–12:00	L.J. Stott
EDU 264	1:00– 2:00	G.W. Bancroft

Winter Session 1972–73 Fall Term

September 19–December 20

COURSE	EVENING	TIME	INSTRUCTOR
EDU 105	Tuesday	4:30–6:30	J.R. Life
EDU 106	Wednesday	4:30–6:30	L.J. LaFave
EDU 107	Tuesday	7:00–9:00	D.A. Clee
EDU 109	Tuesday	7:00–9:00	W.A. Andrews
EDU 110	Wednesday	7:00–9:00	W.E. Sager
EDU 115	Wednesday	4:30–6:30	J.H. Passmore
EDU 124	Wednesday	7:00–9:00	C.C. Brodeur
EDU 140	Wednesday	7:00–9:00	R.G. Casson
EDU 202	Tuesday	4:30–6:30	J.W. Greig
EDU 205	Tuesday	7:00–9:00	To be announced
EDU 230	Wednesday	7:00–9:00	A.J. Zimmerman
EDU 262	Wednesday	4:30–6:30	L.J. Stott
EDU 264	Tuesday	4:30–6:30	D.A. MacIver

*Offered as a residential programme outside Toronto

Winter Session 1972-73 Spring Term

January 9-April 18

COURSE	EVENING	TIME	INSTRUCTOR
EDU 104	Wednesday	7:00-9:00	U. Elliott
EDU 106	Wednesday	4:30-6:30	L.J. LaFave
EDU 136	Tuesday	4:30-6:30	K.A. McLeod
EDU 140	Tuesday	7:00-9:00	R.G. Casson
EDU 150	Wednesday	7:00-9:00	To be announced
EDU 151	Wednesday	4:30-6:30	D.F. Fawcett, R.C. Goode
EDU 153	Tuesday	4:30-6:30	B.E. Conchie
EDU 204	Tuesday	4:30-6:30	To be announced
EDU 206	Tuesday	7:00-9:00	To be announced
EDU 268	Wednesday	4:30-6:30	L.J. Stott

All classes are held at The College of Education, 371 Bloor Street West

School of Nursing

DEGREE PROGRAMME FOR GRADUATES OF DIPLOMA SCHOOLS OF NURSING

This course provides a professional preparation for nursing in both the hospital and public health field, for teaching in schools of nursing and supervision of nursing service. The course leads to the degree of Bachelor of Science in Nursing (BSCN).

The arrangement of the course covers a three-year period, of which the *first and second years* are available through the Division of University Extension. Study in the humanities and sciences is associated with nursing throughout the course. Content in public health nursing and concepts of mental health are associated with the teaching of nursing in each year. Selected clinical experiences are included with the nursing subjects and are arranged by the School with hospitals and other health agencies. Students will be required to provide uniforms for these experiences.

REQUIREMENTS FOR THE DEGREE

FIRST YEAR

Biological Chemistry 103

Biology 100 or 120

English**

Nursing 110

Psychology 100

An elective in the Humanities or Social Sciences**

SECOND YEAR*

Community Health & Epidemiology 300

Nursing 210

Physiology 321, 371

Psychology**

Statistics 300F

An elective in the Humanities or Social Sciences**

THIRD YEAR

Nursing 310

Nursing 311

Nursing 400

Psychology 390

An elective in the Humanities or Social Sciences**

* Although all second year courses are available through part-time studies, several of these courses will be offered only in the daytime.

** Students are advised to take a sequence of courses in the same subject.

GENERAL REGULATIONS

- 1 Part-time students in the School of Nursing may register for a maximum of three full courses in the Winter Session, and a maximum of two full courses in the Summer Session (Summer Evening Session and Summer Day Session combined).
- 2 Only those students who obtain a 'B' or better average in five of their first six credits may continue the second year programme through Extension.
- 3 Students with an (overall) average of between (and including) 50–59% on a year's work as defined in the Calendar will not proceed to the next higher year in the School of Nursing.
- 4 Penalties for unsatisfactory work
 - a A student must obtain standing on the initial attempt in at least four and one-half of the first six subjects. If a student fails more than one and one-half of the first six subjects on the initial attempt, she must apply for re-admission to the programme. The mature student must meet in full the published admission requirements in order to apply for re-admission.
Note: A student who fails to obtain standing in one course and subsequently successfully passes the supplemental examination in that course is nonetheless considered to have once failed to obtain standing.
 - b Supplemental privileges may be offered to a student who has failed one or one and a half courses of a year's work, subject to the following exemptions: In courses given by the Faculty of Arts and Science:
 - A A first year student who has a term mark of at least 60% in a failed course will be permitted to write a supplemental examination in a 100-series course.
 - B No supplemental examinations will be offered for students registered in second, third or fourth years.
 - c The Council of the School of Nursing may refuse re-admission to, or further registration in, the School to any student who on *two* occasions fails to secure the right to advance to a higher year in the School.
 - d The Council of the School of Nursing may suspend a student from registration in the School for a given period of time not exceeding two years and/or until the satisfaction of other conditions as it may see fit. Upon satisfying the conditions of the suspension, the student shall be eligible for consideration to re-register in the School.
- 5 Examination Numbers
Nursing Extension students write final examinations under their own names, followed by 'Nursing Extension.' They are not issued special examination numbers.

6 Time Limit

Students will be required to complete the Degree Course for Graduates of Diploma Schools of Nursing within eight (8) years from the time of initial registration. When a period of over five (5) years has elapsed between the completion of Nursing 110 and Nursing 210, or Nursing 210 and Nursing 310, these courses will be evaluated in terms of the content, when the applicant seeks admission to the second or third year.

7 Transfer to Full Time Study

Students wishing to transfer to full time study should complete the full year's work in Extension. The required forms for transfer are available from the Division of University Extension, 119 St. George Street, or by calling 928-2405, and should be submitted by June 1. Students who are transferring to full time study in Second Year are required to have obtained standing in five First Year credits including Biological Chemistry, Biology, Nursing, and Psychology, before their transfer is approved.

THE NURSING LIBRARY

Located on the third floor of the School of Nursing, 2 Russell Street, the Nursing Library is available to part-time Nursing students.

Summer Hours (commencing May 15)

Monday to Thursday	8:45 A.M.—9:00 P.M.
Friday	8:45 A.M.—5:00 P.M.
Saturday	9:00 A.M.—5:00 P.M.

Winter Hours (commencing mid-September)

Monday to Thursday	8:00 A.M.—9:00 P.M.
Friday	8:00 A.M.—5:00 P.M.
Saturday	10:00 A.M.—4:00 P.M.

COURSE DESCRIPTIONS

COURSES OPEN TO NURSING STUDENTS ONLY

The nursing subjects are designed to help the students extend their knowledge, to identify nursing objectives and to establish principles and concepts for more effective nursing practice.

BCH 103 **Biological Chemistry and Human Nutrition**

Lectures and tutorials dealing with inorganic, organic and biological chemistry and their application to the basic principles of human nutrition.

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

NUR 110 **Nursing**

This course encourages a broad but critical study of nursing in the light of current influences affecting the delivery of health care in Canada. It provides opportunities for the students to extend their understanding of the

professional nurse's role in the hospital and community with a particular focus on group and interpersonal relationships and skills and the assessment of health needs of individuals, families and communities. Recognizing the individual differences and interests of the adult students, this course includes an elective experience chosen by the student for independent study and practice.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

*NUR 210 **Nursing**

The course is designed to increase the students' understanding of the role of the nurse in the promotion of health, prevention of disease and intervention in illness, so that they may become more competent in nursing practice and in assuming responsibility for the teaching and directing of other nursing personnel providing health care.

Prerequisite: NUR 110

Co-requisites: PSL 321, PSL 371, CHE 300

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

CHE 300 **Community Health and Epidemiology**

A lecture and seminar course which includes a study of major health problems and programmes. Emphasis is placed on the epidemiological approach to health problems, and consideration is given to their control by individual and community action. (This Second Year course is open to First Year students with permission of the Division of University Extension.)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

*PSL 321 **Physiology**

An elementary lecture course on the principles of human physiology.

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

*PSL 371 **Physiology**

A course of laboratory exercises and demonstrations to accompany 321. It is designed to give the student an opportunity to acquire a detailed and personal knowledge of some of the most important of the subjects already mentioned in the lecture course and to provide additional material even more directly related to the students' special interests.

Prerequisites: BCH 103 and BIO 100 or BIO 120

Summer Evening ☐ Summer Day ☐ Winter ☐ Not offered ☒

STA 300F **Statistics**

This course presented in lectures and exercises, covers classification and tabulation, frequency distributions and centering constants, the significance of differences in means and 't' test for small samples. (This Second Year course is open to First Year students with permission of the Division of University Extension.)

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

*Offered only during the day.

COURSES AVAILABLE THROUGH THE FACULTY OF ARTS AND SCIENCE

Options, and courses in Biology, English and Psychology, are described in 'The Programme in Arts and Science.' Students in the first year programme are restricted to 'courses open to first- and higher-year students.'

TIMETABLE/SCHOOL OF NURSING

Open to Nursing students only

Summer Evening Session 1972

May 15–August 18

COURSE	EVENING	TIME	BUILDING	ROOM	INSTRUCTOR
BCH 103	Tues. & Thurs.	7:00–9:30	FS	224	To be announced
NUR 110	Mon. & Wed.	7:00–9:30	NU	101	To be announced

Winter Session 1972–1973

September 11–April 13

COURSE	EVENING	TIME	BUILDING	ROOM	INSTRUCTOR
BCH 103	Thursday	7:30–9:30	FS	224	To be announced
CHE 300	Thursday	7:30–9:30	HY	119	To be announced
STA 300F	Tuesday	7:30–9:30	HY	235	P. Corey

Key to Building Abbreviations:

FS Food Sciences, 157 Bloor Street West

HY Hygiene, 150 College Street

NU Nursing, 50 St. George Street

School of Physical and Health Education

Courses leading to the *first year* of the Degree of Bachelor of Physical and Health Education will be offered through the Division of University Extension in conjunction with the School of Physical and Health Education. Interested students who are unable to attend this University in a full time capacity may apply for admission to the Programme through the Division of University Extension. It should be noted, that after a candidate has completed all of the First Year courses it will be necessary to continue the degree programme as a full time student. The number of applicants accepted into the Degree Programme is limited.

REQUIREMENTS FOR THE DEGREE

FIRST YEAR

Physical Education 100 (half-course)
Physical Education 101 (half-course)
Physical Education 103
Psychology 100
Biology 100 or 120
Two Arts and Science Options
Physical Activities A, B, and C.

SECOND YEAR

Physical Education 200
Physical Education 201
Physical Education 203
Anatomy 221
Psychology 202 half-course and one other half-course in Psychology
Two Arts and Science Options.

THIRD YEAR

Anatomy 321
Physical Education 300 (one term)
Physical Education 307
Human Growth and Development 330
Kinesiology 309
Physiology 321, 371
Two Arts and Science Options.

FOURTH YEAR

Physical Education 400
Physical Education 401
Physical Education 403

Two from the following half-courses: Physical Education 405–430
 Physical Education 490
 Hygiene and Preventive Medicine 407
 Physiology of Physical Activity 411
 Two Arts and Science Options.

PHYSICAL ACTIVITIES

Students will be required to achieve a level of proficiency in selected games, sports and physical activities in each of the four years. All students will be assessed in physical activity courses. The assessment will appear on a transcript.

Note: For options in the Faculty of Arts and Science refer to the course descriptions in that section of the calendar.

NOTE: Requirements for degree subject to revision.

GENERAL REGULATIONS

Part-time students in the School of Physical and Health Education may register for a maximum of three full courses in the Winter Session, and a maximum of two full courses in the Summer Session (Summer Evening Session and Summer Day Session combined).

CONDITIONS FOR ACADEMIC STANDING

- 1 In order to pass in a subject a candidate must obtain at least 50% of the aggregate of the term and examination marks in the course.
- 2 A student whose attendance at laboratories, or whose work is deemed by the Council of the School to be unsatisfactory, may have his/her registration cancelled at any time by the Council of the School.
- 3 A candidate is allowed two supplemental examinations. A candidate who does not write any examination or who fails to appear for any examination without just cause will be regarded as a failure in that course. With the recommendation of the department concerned and the approval of the Council of the School, a candidate may carry one condition into the next year. A condition must be removed at the next annual examination.

4 Mature students on probation:

Candidates accepted by the Senates' Committee on Admissions as mature students are admitted on probation.

A mature student, registered in a degree programme in the Division of University Extension, who does not meet in full the published admission requirements, and who has been admitted as a mature student on probation, must obtain standing on the initial attempt in at least three of his first five courses in order to have his probationary status removed. If the student fails more than two of his first five courses, he will not be allowed to re-register in any degree course in the University of Toronto until he presents in full the published admission requirements.

Note: A student on probation who fails to obtain standing in one course

and subsequently successfully passes the supplemental examination in that course is nonetheless considered to have once failed to obtain standing.

COURSE DESCRIPTIONS

PE 100 History of Physical Education (half-course)

An introductory course emphasizing the historical and comparative aspects of physical education and sport.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PE 101 Philosophic Issues in the Study of Human Movement (half-course)

This course introduces the student to selected philosophic systems and questions as they pertain to the study of sport, dance and exercise. Assignments and tutorials are aimed at helping the student identify and examine critically his views on man's involvement in these complex movement forms. Note: A student must register for both PE 100 and PE 101 in a single session.

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PE 103 Foundations of Physical Activity

A lecture and laboratory course in which emphasis is placed on an understanding of physical fitness. The laboratory periods include group evaluation procedures, individual fitness appraisal and an introduction to basic conditioning programmes.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Physical Activities

A – Aquatics

B – Gymnastics

C – Track and Field, Field Hockey, Football and Soccer.

SPECIAL STUDENTS ONLY

PE 203 Motor Learning

The course is divided into three sections. The first section will consider basic learning theory and its application to human movement. The second section will be concerned with the development of a model of human performance primarily designed to study man's limitations and capabilities. The third segment is designed to acquaint the students with the personal make-up of the performer (personality, motivation, emotion etc.) and to improve the student's basic understanding of the performer.

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

PE 330 Human Growth and Development

Topics which relate physical education and health education will be discussed with emphasis on the role of physical activity in the maintenance of health.

Section I: Growth and Development

Genetics and human reproduction; growth of the cell; growth periods; height and weight studies; body proportions; family life and sex education; ageing.

Section II: Health Education Seminars

Theories of health, fitness and health; contributions of exercise and sport to mental health; nutrition and athletic performance; exercise and weight control; sports competition; growth and longevity; fatigue; physical activity and the cardiovascular system; smoking, narcotics and stimulants; alcohol and alcoholism; consumer health; chronic disease and physical activity.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

TIMETABLE/SCHOOL OF PHYSICAL AND HEALTH EDUCATION

Open to School of Physical and Health Education students only

Summer Evening Session 1972

May 15–August 18

COURSE	EVENING	TIME	BUILDING	INSTRUCTOR
Phys. Act. C	Tues. & Thurs.	7:00–9:30	To be announced	To be announced
PE 203	Tues. & Thurs.	7:00–9:30	To be announced	J. McClements

Summer Day Session 1972

July 4–August 18

COURSE	TIME	BUILDING	INSTRUCTOR
PE 100–101	2:30–4:30	121 St. Joseph St.	M. O'Bryan R. Stone

Winter Session 1972–73

September 11–April 13

COURSE	EVENING	TIME	BUILDING	INSTRUCTOR
Aquatics	Monday	7:30–9:30	To be announced	S. Romeiko
PE 103	Tuesday	7:30–9:30	To be announced	J. Daniel
PE 330	Thursday	7:30–9:30	To be announced	T. Pallandi J.H. Ebbs

FEES

PE 100–101/\$75.00

PE 103/\$75.00

PE 203/\$95.00

PE 330/\$95.00

Physical Activities Courses A, B, and C/\$25 each

All Arts and Science courses are \$95.00

Faculty of Food Sciences

In 1902, a University of Toronto Statute established the first degree course on the continent to be concerned with the problems of managing a home. Its aim was to combat the disease and malnutrition, the inadequate housing and the lack of sanitation which accompanied the prodigal use of the world's resources following the Industrial Revolution. In 1906, a government order-in-council provided for a "Faculty of Household Science" in the University of Toronto, and an endowed building, gift of Mrs. Lillian Massey Treble was completed by 1912. The "Faculty of Food Sciences", authorized by the University Senate in 1962, is located on the corner of Bloor Street and Queen's Park Crescent in the same building and still owes its University authority to the original order-in-council. In this affluent age, with its emphasis on super-technology, problems of home management which were the Faculty's original concern are often less demanding than problems of family living and human relationships. For this reason, the current undergraduate programme is designed to give students an academic background in the basic, biological and behavioural sciences.

All courses offered by the Faculty of Food Sciences through the Division of University Extension are taught *subject to demand*.

For Type A (Home Economics) qualification, at least one course must be included from each of the five areas of Home Economics:

- 1 Food and Nutrition
- 2 Clothing and Textiles
- 3 Family and Child Development
- 4 Housing and Interior Design
- 5 Management and Consumer Economics

COURSE DESCRIPTIONS

FAMILY AND CHILD DEVELOPMENT

FS 120 **Man and Environment**

A lecture course on the limitations imposed on man by nature with emphasis on food supply; anthropological, cultural and social aspects of man's environment, with emphasis on dress and adornment; limitations imposed on man by means of livelihood and ways of life, with emphasis on human settlement.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

FOOD AND NUTRITION

FS 280 **Introduction to Nutrition**

Basic principles related to nutrients as components of foods and to their function in the human body; evaluation of factors, such as the life cycle, which influence nutrient requirements.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

MANAGEMENT AND CONSUMER ECONOMICS

FS 472 Management of Human Resources

Manpower techniques; analysis of current theories and research evidence; selection, development and supervision of members of work organizations as individuals and as members of informal work groups.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

TIMETABLE/FOOD SCIENCES

Winter Session 1972-73

September 11-April 13

COURSE	EVENING	TIME	INSTRUCTOR
FS 120	Tuesday	7:30-9:30	To be announced
FS 280	Wednesday	7:30-9:30	To be announced
FS 472	Thursday	7:30-9:30	To be announced

All classes are held in room 222 of the Food Sciences Building, 157 Bloor Street West

ERINDALE CAMPUS



Faculty of Arts and Science

COURSE DESCRIPTIONS

Anthropology

ANT 100E **Introduction to Anthropology**

A survey of the biological and cultural aspects of man and his behaviour, including the evolutionary development of man and the scope of his present variation; the concept of culture, its various aspects and processes and origin, development and differentiation of cultures from the archaeological record.

Instructors: F.J. Melbye (SDS) To be Announced (ws)

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

ANT 204E **Social and Political Organization**

A general survey emphasizing non-western peoples.

Instructor: E.G. Schwimmer

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ANT 233E **Introduction to Physical Anthropology**

On introduction to physical anthropology and human biology. Lectures will discuss human evolution, variation and biological patterns. A laboratory is offered to familiarize the student with human biological materials and techniques.

Instructor: F.J. Melbye

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Biology

BIO 100E **The Study of Life**

Organized around three major abstract concepts: Time (Evolutionary Processes and Products), Energy (Its Procurement and Utilization by Living Organisms), and Information (The Organization of living Systems). It presents an integrated study of life at four levels: molecular, cellular, organismal, and social; leading the student to an awareness of the five unique characteristics of living material, i.e. Organized Structure, Specialized Function, Growth and Development, Heredity, and Evolution. Practical sessions will introduce the student to a wide range of material and techniques. Recommended for all students considering subsequent courses in Biology.

Instructor: P.V. Rangnekar

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Commerce

COM 100 **Financial Accounting**

Emphasis is placed on the principles and concepts which underlie the preparation of financial statements. Problems of income measurement are also stressed.

Instructor: H.E. McCandless

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Economics

ECO 100 **Introduction to Economics**

A survey course with emphasis on the basic concepts in macro and micro economic theory; international trade and the techniques economists use to analyse problems. The concepts introduced will include: national income and its determination; monetary and fiscal techniques; business cycle determination; the derivation and use of supply and demand schedules; the theory of the firm and principles of comparative advantage and tariff protection.

Instructors: F.B. Mayer (SES) M.J. Hare (ws)

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

ECO 200 **Micro-Economic Theory**

An intermediate treatment of the basic tools of economic analysis with applications to a wide variety of economic problems in the area of pricing, resource allocation, income distribution and welfare economics. May not be combined with ECO 228E.

Instructors: To be announced (SDS) J.E. Floyd (ws)

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

English

ENG 108 **Forms of 20th Century Literature**

At least twelve and no more than fifteen works by twentieth century authors, including works by at least three novelists, three poets and three dramatists. These shall include works by at least six of the following authors: Conrad, Faulkner, Joyce, Lawrence, Woolf; Auden, Eliot, Frost, Stevens, Yeats; Albee, Beckett, O'Neill, Pinter, Shaw.

Instructor: D.I. Lancashire

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ENG 152 Canadian Literature in English

Selections from *The Book of Canadian Prose* (ed. Smith); Moodie, *Roughing it in the Bush*; Leacock, *Sunshine Sketches*; MacLennan, a novel; Callaghan, *More Joy in Heaven*. Four to six additional novels. Selected Poetry and short fiction. Recommended reading: *Canadian Anthology* (ed. Klinck and Watters, 2nd ed.); supplementary texts may be selected.

Instructor: G.A. MacDonald

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

ENG 212 Shakespeare

Special study of *Romeo and Juliet*, *A Midsummer Night's Dream*, *Richard II*, *Henry IV*, Parts I and II, *Twelfth Night*, *Measure for Measure*, *Hamlet*, *Antony and Cleopatra*, *The Tempest*. Additions or substitutions may be made by the instructor. Duplication with English 332 will be avoided. Fulfills specialization requirement.

Instructor: To be announced

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

ENG 218 Major American Authors

An introductory study of a number of American authors – no fewer than four and no more than six – chosen from different periods and so as to suggest something of the range of American literature. At least three of the authors should be drawn from the following list: Hawthorne, Melville, Whitman, Mark Twain, James, Stevens, Eliot.

Instructor: T.H. Adamowski

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

ENG 354 Canadian Poetry

A minimum of fifteen poets from the nineteenth and twentieth centuries, at least nine of which to be chosen from the following: Crawford, Carman, Lampman, D.C. Scott, Pratt, F.R. Scott, A.J.M. Smith, Birney, Klein, Livesay, Layton, Avison, Purdy, Souster, Reaney. French Canadian poetry in translation may be included. Fulfills specialization requirement.

Instructor: To be Announced.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

French

FRE 120 Introduction to University French Studies

The major part of this course, designed to facilitate the acquisition of the linguistic skills necessary for active participation in courses offered is devoted to language practice. However, as well as class and laboratory work in language, attention may also be given to readings and discussions of literary works.

Instructor: To be Announced

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Geography

GGR 131E Introduction to Man's Use of the Environment

Variations in economic and social organizations at pre-industrial and advanced levels of technology. Emphasizes the development of knowledge and techniques of resource utilization.

Instructor: R. Putnam

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

GGR 241E An Introduction to Urban Geography

The distribution of cities and the internal differentiation of cities as spatial systems: analysis of the structure and functioning of such systems and the processes involved in their evolution and change. (May not be combined with GGR 203EF or 204ES from 1970-71 Calendar).

Instructors: H.F. Andrews (SES) To be Announced (SDS)

Summer Evening ☒ Summer Day ☒ Winter ☐ Not offered ☐

GGR 341E Urban Systems Workshop

Detailed enquiries of a limited range of topics in urban geography. Possible areas of study include: perception of the urban environment and image; modelling aspects of a system of cities; political processes in urban areas; contributions to an "Atlas of Toronto"; urban-rural fringe studies.

Instructor: H.F. Andrews

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

GGR 491E B.A. Thesis (2 course credits)

A research project, each student working on a topic of his choice under the individual guidance of a member of the staff.

Prerequisites: Six GGR courses

Instructor: Staff

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

History

HIS 100E Europe and the World, 1789-1969

Modern Europe from the French Revolution to the 1960s with special emphasis on Europe's relations with other parts of the world. Political, economic, social and cultural aspects will be covered.

Instructor: To be Announced.

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

HIS 200E The United States 1607-1968

An introduction to American History, from the earliest colonial settlements to the present. Primary attention devoted to political developments, but economic, social and intellectual factors will also be examined.

Instructor: S.J. Randall

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

HIS 205E Canada 1663–1967

A survey of the political, social and economic history of Canada, topically treated.

Instructor: D. Morton

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Italian

ITA 100 Beginning Italian

Grammar, translation, oral work, with a view to providing basic conversational and writing skills.

Instructor: To be announced

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Mathematics

MAT 110EF/ES Introductory Calculus

(Intended for students who did not take or did poorly in Mathematics "A") Differentiation and integration of elementary functions with applications.

(May not be combined with: MAT 135 except by students who are ineligible to enrol in MAT 135 and who take this course to become eligible.)

Instructor: J.E. LeBel (SDS), J.E. LeBel (WS)

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

MAT 120EF/ES Finite Mathematics

Vectors and linear transformations. Matrices and their properties. Notions of probability. Applications to linear programming, game theory, and Markov chains.

(May not be combined with: MAT 135 except by students who are ineligible to enroll in MAT 135 and who take this course to become eligible.)

Instructor: J.E. LeBel (SDS), J.E. LeBel (WS)

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

Philosophy

PHL 100 Introduction to Philosophy

An examination of a wide range of representative and important philosophical questions, such as: are moral standards relative to one's society? Do human beings have freedom of the will? Are there rational grounds for belief in the existence of God? Is there such a thing as altruistic motivation? What is the relation between a person's mind and his body? Topics in semantics, logic and scientific method are also discussed with a view to avoiding certain common errors in reasoning.

Instructor: W.J. Huggett (SES), W.J. Huggett (WS)

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

PHL 200S Reason and Morality

Can we function as human beings in society without some form of morality? We do in fact level moral accusations, express moral indignation, pass moral judgments, allot praise and blame, and justify our own actions, but how can anyone know what is morally right? And why should anyone do what is right when it is not to his advantage? This course examines the relations between reason and morality in interpersonal relations and considers arguments for hedonism, utilitarianism, emotivism and egoism. (In sequence with PHL 205F.)

Instructor: W.R.C. Harvey

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PHL 204S Literature and Philosophy

Man's nature, his relations to his fellows and his place in the universe are all themes that have received significant literary and philosophical attention. Several major works of literature ranging all the way from Greek tragedy to science fiction are examined with a view to clarifying and evaluating the philosophical doctrines they reveal and reflect. Among the authors studied are Sophocles, Camus, Brecht, Golding, Dostoevsky, Tolstoy and Kafka.

Instructor: W.R.C. Harvey

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHL 205F Contemporary Social Issues

Sexual morality and marriage; abortion, drugs, and the law; women's liberation, capital punishment and pollution are among the issues raised. The structure and validity of the arguments employed are investigated and the tenability of various moral and other principles which they contain is examined. (In sequence with PHL 200S.)

Instructor: W.R.C. Harvey

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PHL 220F Belief, Knowledge and Truth

Gullibility and credulity, fads and fallacies, hoaxes in science, religion and the arts. Against this background we deal with basic topics in the theory of knowledge, such as: certainty and skepticism, the subjectivity of perception, reason and rationality, theories of truth, and the criteria and justification of claims to know.

Instructor: A. Urquhart

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHL 261S Philosophy of Religion

What is the nature of religious belief and is it justifiable? In attempting to answer this and related questions we study primitive religion, three Eastern religions (Confucianism, Taoism, and Buddhism), the ontological argument for the existence of God, the Freudian critique of religion, and the relationship between science and religion. (In sequence with PHL 270F)

Instructor: J.V. Canfield

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PHL 270F Miracles, Mysticism, and the Occult

A study of paranormal phenomena, the significance of the occult sciences, the possibility of miracles, disembodied existence, drug-induced states of mind and genuine mystical experiences. A selection will be made from an extensive philosophical literature dealing with these topics. (In sequence with PHL 261F)

Instructor: J.V. Canfield

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Political Science

POL 100 Introduction to Canadian Politics

An introduction to the political process in Canada, including political culture and behaviour, political parties, the structure and function of political institutions, federalism, French Canada.

Instructor: To be Announced

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

POL 200 History of Political Thought

This course examines fundamental concepts and themes of the main political philosophers of the Western world from classical Greece to the modern times.

Prerequisite: POL 101 or permission of the instructor

Instructor: J.T. Agresto

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

POL 208 International Relations

A study of international systems with emphasis on the sources and resolution of interstate conflict.

Instructor: B. Kovrig

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

POL 327 Comparative Foreign Policy

An examination on a comparative basis of the foreign policies of The United States, the Soviet Union, Great Britain, France, Germany, and India.

Instructor: R. Gregor

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Psychology

PSY 100 Introductory Psychology

Psychology is the science of behaviour; and this course seeks to acquaint the student with the scientific method as it is applied in attempting to understand both human and animal behaviour. This course is the strongly recommended prerequisite for all other psychology courses.

Instructors: J. Seggie (SES), I.M. Spigel (sbs), F.I.M. Craik (ws – Fall), T.M. Alloway (ws – Spring)

Summer Evening ☒ Summer Day ☒ Winter ☒ Not offered ☐

PSY208EF Sensory and Perceptual Processes

Examination of theoretical and experimental efforts aimed at understanding sensory and perceptual function. Emphasis will be placed on vision research at both the physiological and behavioural levels.

Instructor: I.M. Spigel

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY213ES Comparative Psychology

The innate and learned social responses of a variety of animals studies with emphasis on both the similarities and differences in the species specific modes of responding.

Prerequisite: PSY 100 recommended

Instructor: L. Krames

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PSY214EF Human Learning and Memory

Facts, theories, and methods in the study of human learning. Major emphasis will be on recent trends in the study of verbal learning, memory and verbal behaviour.

Instructor: F.I.M. Craik

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

PSY 214ES Human Learning and Memory

Facts, theories, and methods in the study of human learning. Major emphasis will be on recent trends in the study of verbal learning, memory and verbal behaviour.

Instructor: F.I.M. Craik (sds), F.I.M. Craik (ws)

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

PSY 216ES Experimental Design and Theory

Problems involved in experimental design and the interpretation of experimental findings; the logical structure of psychological theories. Practice in the critical evaluation of experimental designs and the correction of experimental errors.

Prerequisite: PSY 100

Instructor: I.M. Spiegel

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 218EF Classical and Instrumental Conditioning

Phenomena of classical and instrumental conditioning in mammals will be discussed from both an empirical and a theoretical point of view. Seeks to acquaint the student with most of the basic findings in this area.

Prerequisite: PSY 100

Instructor: T.M. Alloway (sds), T.M. Alloway (ws)

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

PSY 326ES Abnormal Psychology

A survey of theories and research on abnormal behaviour and psychological treatment with special emphasis on social learning theory and behaviour modification techniques.

Prerequisite: PSY 204ES/PSY 218EF and permission of the instructor.

Instructor: K.R. Blankstein

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

PSY 368EF Child Psychology

A survey of contemporary research and theoretical controversies in the scientific study of child psychology.

Prerequisite: PSY 218EF is strongly recommended and permission of the instructor.

Instructor: C.M. Corter (sds), C.M. Corter (ws)

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

PSY 368ES Child Psychology

A survey of contemporary research and theoretical controversies in the scientific study of child psychology.

Prerequisite: PSY 218EF is strongly recommended and permission of the instructor.

Instructor: C.M. Corter

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Religious Studies

REL 100 **Religious Traditions, East and West**

An introductory course in exploring the major living religious traditions of the East and West. Citations from the sacred scriptures of these religions will be studied in translation. Comparisons in ideas, attitudes, beliefs and practices will be considered. Pictorial data, slides and films will be used in describing the rituals and ceremonies of the diverse religions. The breadth of the course will deepen one's understanding of man's profoundest religious expressions, aspirations, convictions and concerns in life.

Instructor: To be Announced

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

REL 230E **The Roles of Religion in Human Development**

The positive and negative roles which religion has played and continues to play in human development and in cultural progress. A general analysis of personhood and the need in authentic human living for self transcendence. The phenomenon of faith; religion as wonder, religion as meaning; and religion as health.

Instructor: L.J. Elmer

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

REL250EF **Teilhard de Chardin: His Impact on Modern Man**

This course will examine the thought and spirit of Teilhard de Chardin as a Christian interpretation of the evolutionary theory. Creation, evil, sin, love, work, cosmic spirituality are pivotal issues, as well as Teilhard's relevance for 20th century man.

Instructor: L.J. Elmer

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

REL302ES **Architects of Modern Religious Thought**

Recent and contemporary thinkers, schools and trends in religious thought and their relevance to human problems. Today's radical ("God is dead") theologians and secularizers. Among those studied are: Bonhoeffer; Tillich; Tolstoy; V. Frankl; R. May; Bernanos; Antoine de Saint Exuphe Bultman.

Instructor: M. Lavelle

Summer Evening ☐ Summer Day ☒ Winter ☐ Not offered ☐

REL 303 **Christian Origins**

A study of some of the literary antecedents to Christianity with particular emphasis being given to the Wisdom Writings of the Ancient Near East. Texts: The Bible; The Epic of Gilgamesh, N.K. Sandars (The Penguin Classics); Religions of the Ancient Near East, ed. Isaac Mendelsohn, (The Library of Liberal Arts).

Instructor: D. Belyea

Summer Evening ☒ Summer Day ☐ Winter ☐ Not offered ☐

Sociology

SOC 101 Introduction to Sociology

An introduction to the basic concepts, principles, and methods of sociology as a discipline for the study of society.

Instructor: M. Cooper (SES), To be Announced (ws)

Summer Evening ☒ Summer Day ☐ Winter ☒ Not offered ☐

SOC 208E Sociology of Deviance

A sociological analysis of deviant behaviour which examines theories of its genesis, social definition, maintenance, control, and social consequences.

Instructor: To be Announced

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SOC 212E Sociology of the Family

Development of the contemporary Western family with special emphasis on the changing relations among its members.

Instructor: To be Announced

Summer Evening ☐ Summer Day ☒ Winter ☒ Not offered ☐

SOC 313E Sociological Theory

The development of sociology and contributions of particular sociologists whose concepts not only have historical interest but also illumine the subject matter and method of contemporary society.

Instructor: To be Announced

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

SOC 316E Comparative Elites

An examination of the contributions of social theorists of elite theory; and, the comparative analysis of case studies and documentary materials for the purposes of assessing the relevance of alternative elite theories for Canadian society.

Instructor: A. Bennett

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

Spanish

SPA 100E Beginning Spanish

For those who have had no previous background in Spanish. By the end of the year, students should have acquired sufficient skill in the written and spoken language to be able to specialize in Spanish if they wish. Emphasis will be placed on oral practice both in class and in the language laboratory.

Instructor: To be announced

Summer Evening ☐ Summer Day ☐ Winter ☒ Not offered ☐

TIMETABLE/ARTS AND SCIENCE/ERINDALE CAMPUS

Summer Evening Session 1972

May 15–August 18

COURSE	EVENING	TIME	BUILDING	ROOM	INSTRUCTOR
ECO 100	Mon. & Wed.	7:00– 9:30	P	239	F.B. Mayer
ENG 218	Tues. & Thurs.	7:00– 9:30	P	282	T.H. Adamowski
GGR 241E	Tues. & Thurs.	7:00– 9:30	P	239A	H.F. Andrews
HIS 200E	Mon. & Wed.	7:00– 9:30	P	269	S.J. Randall
PHL 100	Mon. & Wed.	7:00– 9:30	P	241	W.J. Huggett
POL 100	Tues. & Thurs.	7:00– 9:30	P	285	To be announced
PSY 100	Mon. & Wed.	7:00– 9:30	P	245	J. Seggie
REL 303	Mon. & Wed.	7:00– 9:30	P	279	D.E. Belyea
SOC 101	Tues. & Thurs.	7:00– 9:30	P	287	M.H. Cooper

Summer Day Session 1972

July 4–August 18

COURSE	TIME	BUILDING	ROOM	INSTRUCTOR
ANT 100E	9:00–11:00	P	239A	F.J. Melbye
ECO 200	11:30– 1:30	P	270	To be announced
ENG 152	11:30– 1:30	P	269	G.A. MacDonald
GGR 241E	9:00–11:00	P	239	To be announced
GGR 491E	To be announced	To be announced	To be announced	Staff
MAT 110EF	11:30– 1:30	M	2056	J.E. Le Bel
MAT 120ES	11:30– 1:30	M	2056	J.E. Le Bel
PHL 200S	9:00–11:00	P	241	W.R.C. Harvey
PHL 205F	9:00–11:00	P	241	W.R.C. Harvey
POL 200	9:00–11:00	M	1076	J.T. Agresto
PSY 100	9:00–11:00	P	292	I.M. Spigel
PSY 213ES	9:00–11:00	M	1092	L. Krames
PSY 214EF	9:00–11:00	M	1087	F.I.M. Craik
PSY 214ES	9:00–11:00	M	1087	F.I.M. Craik
PSY 218EF	11:30– 1:30	M	1096	T.M. Alloway
PSY 368EF	11:30– 1:30	M	1074	C. Corter
REL 250EF	11:30– 1:30	P	287	L.J. Elmer
REL 302ES	11:30– 1:30	P	287	M. Lavelle
SOC 212E	11:30– 1:30	P	245	To be announced

Building Abbreviations: M—Main Building; P—Preliminary Building.

TIMETABLE/ARTS AND SCIENCE/ERINDALE CAMPUS

Winter Session 1972-73

September 11-April 13

COURSE	EVENING	TIME	INSTRUCTOR
ANT 100E	Thursday	7:30-9:30	To be announced
ANT 204E	Tuesday	7:30-9:30	E.G. Schwimmer
ANT 233E	Monday	7:30-9:30	F.J. Melbye
BIO 100E	Wednesday	7:30-9:30	P.V. Rangnekar
COM 100	Monday	7:30-9:30	H.E. McCandless
ECO 100	Thursday	7:30-9:30	M.J. Hare
ECO 200	Thursday	7:30-9:30	J.E. Floyd
ENG 108	Wednesday	7:30-9:30	D.I. Lancashire
ENG 212	Thursday	7:30-9:30	To be announced
*ENG 354	To be announced	7:30-9:30	To be announced
FRE 120	Monday	7:30-9:30	To be announced
GGR 131E	Thursday	7:30-9:30	R. Putnam
GGR 341E	Thursday	7:30-9:30	H.F. Andrews
HIS 100E	Tuesday	7:30-9:30	To be announced
HIS 205E	Thursday	7:30-9:30	D.P. Morton
ITA 100	To be announced	7:30-9:30	To be announced
MAT 110ES	Monday	7:30-9:30	J.E. Le Bel
MAT 120EF	Monday	7:30-9:30	J.E. Le Bel
PHL 100	Wednesday	7:30-9:30	W.J. Huggett
PHL 204S	Thursday	7:30-9:30	W.R.C. Harvey
PHL 220F	Thursday	7:30-9:30	A.I.F. Urquhart
*PHL 261S	Tuesday	7:30-9:30	J.V. Canfield
*PHL 270F	Tuesday	7:30-9:30	J.V. Canfield
POL 208	Thursday	7:30-9:30	B. Kovrig
POL 327	Wednesday	7:30-9:30	R. Gregor
PSY 100	Thursday	7:30-9:30	T.M. Alloway
			F.I.M. Craik
PSY 208EF	Tuesday	7:30-9:30	I.M. Spigel
PSY 214ES	Thursday	7:30-9:30	F.I.M. Craik
PSY 216ES	Tuesday	7:30-9:30	I.M. Spigel
PSY 218EF	Monday	7:30-9:30	T.M. Alloway
PSY 326ES	Monday	7:30-9:30	K.R. Blankstein
PSY 368EF	Wednesday	7:30-9:30	C. Corter
PSY 368ES	Wednesday	7:30-9:30	C. Corter
REL 100	Monday	7:30-9:30	To be announced
REL 230E	Monday	7:30-9:30	L.J. Elmer
SOC 101	Monday	7:30-9:30	To be announced
SOC 208E	Monday	7:30-9:30	To be announced
SOC 212E	Wednesday	7:30-9:30	To be announced
*SOC 313E	To be announced	7:30-9:30	To be announced
*SOC 316E	To be announced	7:30-9:30	A.M. Bennett
SPA 100E	To be announced	7:30-9:30	To be announced

*The asterisked courses are day courses which will be held in the evening.

Other Programmes of the Division of University Extension

SUMMER COURSES AT NICE, FRANCE, 1972

In addition to the regular Summer Session, the Division of University Extension is offering the following Degree courses in Nice, July 6–August 18.

Economics 342	Comparative Industrialization
English 304	English Poetry and Prose, 1600–1660
English 348	Modern Poetry
Fine Art 230	Visual Arts II
French 344	Modern Poetry (The Post-Romantics)
French 364	Prose Fiction from 1800 to 1900
French 371	Language Practice
French 372	The Structure of Modern French
History 241F	Nineteenth Century European Politics, Culture and Society
History 242S	Europe in the Contemporary Era, 1890–1953
History 302	France Since Napoleon
Philosophy 230F	Existentialism and Phenomenology
Philosophy 231S	The Philosophy of Jean-Paul Sartre

FURTHER INFORMATION :

Toronto-Nice Summer Programme
Division of University Extension
119 St. George Street
Toronto 181, Ontario
(416) 928–2405

DIPLOMA AND CERTIFICATE PROGRAMMES

Diploma Programme in Translation French-English-French

PURPOSE

The University of Toronto responded to the growing demand for competent translators by introducing a Diploma Programme in Translation in September of 1969. The programme is designed for both French and English speaking students and provides a formal training for aspiring translators. The diploma will provide access to membership in the professional associations of Canadian interpreters and translators.

The programme is designed to achieve a close relationship between the theoretical and practical applications of translating. While the stress is on comparative linguistics and stylistics, students will also learn to express themselves in the working language of translation through creative writing.

ADMISSION REQUIREMENTS

Normally, applicants must hold a BA degree from a North American University or have equivalent academic qualifications. In determining such equivalence, recognition will be given to proficiency in French and English and professional experience in translation.

In addition, candidates for admission will be required to pass an entrance examination which will admit them to a three-year programme. For those who do not satisfy the requirements of this examination, but who show promise in translating, a one-year course of instruction is provided which is designed to upgrade and prepare students for admission to the three-year diploma programme. For further information call 928-2405.

Certificate Programmes

The Certificate Programmes provide an opportunity through part-time study to examine the following:

BUSINESS

The Programme consists of six courses in the field of business administration and commerce, three of which are obligatory.

The approach to each course is analytical with emphasis upon the general principles and theory rather than upon the mastery of the specific practical techniques of the basic principles of modern business.

PUBLIC ADMINISTRATION

The Programme consists of six courses, four of which are obligatory, designed to provide a background in the social sciences as related to public administration for public servants at the municipal, provincial, or federal level. It is intended primarily for those with some experience in the public service who have taken on duties requiring a broader understanding of the nature of government and administration.

CRIMINOLOGY

The Programme consists of six courses, three of which are obligatory, designed to deepen the knowledge and understanding of criminology in its various aspects. It proposes to examine some of the basic problems in the study of crime, the administration of criminal justice, and the treatment of offenders.

PERSONNEL AND INDUSTRIAL RELATIONS

The Programme consists of seven courses, three of which are obligatory, designed for labour, management and government representatives who have an interest in personnel and industrial relations. The Programme combines both theoretical and practical materials and is so structured as to permit specialization in either Personnel or Industrial Relations.

Further information telephone 928-2405

CONTINUING EDUCATION PROGRAMME

The Continuing Education Programme of the Division of University Extension offers courses which do not lead to university degrees or certificates, but provide an opportunity for systematic study for persons wishing to increase their knowledge. Programmes are offered in the areas of Business, Engineering and other professional fields and general education. Some students are enrolled in courses leading to certificates granted by institutions or associations in the business community. All the courses offered are designed to provide the student with a continuing education at university level.

Further information telephone 928-2400

INDEPENDENT STUDY PROGRAMME

Correspondence Courses are available either by direct enrolment or as part of educational programmes, sponsored by various organizations. Included are business subjects, social sciences, and liberal arts. Courses do not lead to credit toward any degree, diploma or certificate awarded by the University; however, the sponsoring organizations award certificates or designations upon completion of their programme requirements.

Further information telephone 928-2412

CO-ORDINATED PROGRAMMES

Industrial Marketing

A certificate of achievement will be awarded by the Industrial Marketers of Toronto.

Operational Research

Those successfully completing the programme will be granted a certificate by the Canadian Operational Research Society.

Personnel and Manpower Development

Certificates will be awarded by various organizations depending on the major area of study of the student.

Fellows Programme in Banking

A certificate of achievement will be awarded by the Institute of Canadian Bankers upon successful completion of the required courses.

Further information telephone 928-2400

PROGRAMMES FOR ASSOCIATIONS

Four programmes are conducted by the Division of University Extension for outside organizations. These lead to recognized professional designations. Further details of each programme are available from the appropriate organization as indicated below.

Certificate Course in Administrative Management

Offered in co-operation with the Administrative Management Society and leads to the designation C.A.M. (Certified Administrative Manager).

Further information telephone 928-2400

The Canadian Industrial Management Association

A course in Industrial Management and Administration leading to the designation C.I.M. (Certified Industrial Manager).

Further information telephone 491-2982

The R.I.A. Programme

Conducted by the provincial Societies of Industrial Accountants leading to the designation R.I.A (Registered Industrial Accountant).

Further information telephone 363-8191

UNIVERSITY OF TORONTO CALENDARS

The University of Toronto issues the following calendars and other publications concerning courses of instruction given by the University. Requests for calendars or information may be directed to the Office of Admissions of the University or to the Secretary of the particular Faculty, School or Institute.

ADMISSION INFORMATION—	Admission Awards Undergraduate Admission Handbook Undergraduate Admission Bulletin
APPLIED SCIENCE AND ENGINEERING—	Faculty of Applied Science and Engineering Engineering at Toronto—descriptive brochure
ARCHITECTURE—	Faculty of Architecture, Urban and Regional Planning and Landscape Architecture
ARTS AND SCIENCE—	Faculty of Arts and Science— St. George Campus Scarborough College Calendar Erindale College Calendar
BUSINESS—	School of Business—Graduate Programmes in Business Administration
CHILD STUDY—	Institute of Child Study, The College of Education
DENTISTRY—	Faculty of Dentistry Division of Postgraduate Dental Education Division of Dental Hygiene
EDUCATION—	The College of Education Bachelor of Education in Extension Graduate Degrees in Education*
EXTENSION—	Degree Programmes in Extension Diploma and Certificate Programmes in Extension Pre-University Courses Continuing Education Programme (Business and Engineering) Continuing Education Programme (Special Programmes)
FOOD SCIENCES—	Faculty of Food Sciences
FORESTRY—	Faculty of Forestry
GRADUATE STUDIES—	School of Graduate Studies
HYGIENE—	School of Hygiene
LAW—	Faculty of Law
LIBRARY SCIENCE—	School of Library Science
MEDICINE—	Faculty of Medicine, Medical Course Division of Rehabilitation Medicine Division of Postgraduate Medical Education
MUSIC—	Faculty of Music Royal Conservatory of Music Year Book
NURSING—	School of Nursing
PHARMACY—	Faculty of Pharmacy
PHYSICAL AND HEALTH EDUCATION—	School of Physical and Health Education
SOCIAL WORK—	School of Social Work

*Write to: Ontario Institute for Studies in Education, 252 Bloor Street West,
Toronto 181, Ontario.

